RESPONSES

TO

CONCERNS RAISED IN WRITTEN AND ORAL STATEMENTS

FOR JULY 15, 1976 PUBLIC HEARING

on the

Construction Of The Southwest Corridor Project

From South Cove to Forest Hills

August 6, 1976

Massachusetts Bay Transportation Authority

Massachusetts Department of Public Works

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INTRODUCTION

INTRODUCTION

Pursuant to Section 3 (d) (1) of the Urban Mass Transportation Act of 1964, as amended and/or the Federal Aid Highway Act of 1973, the Massachusetts Bay Transportation Authority and the Massachusetts Department of Public Works held a Public Hearing concerning plans for the construction of the Southwest Corridor Project from South Cove to Forest Hills. The Public Hearing was held at the following time and location:

State Diagnostic Laboratory Auditorium
305 South Street
Jamaica Plain, Massachusetts 02130

July 15 and 16, 1976

This report contains responses to the comments made at and included in the transcript of the Public Hearing as well as responses to the written statements received by the MBTA and DPW subsequent to the Public Hearings, from various Federal, State and municipal agencies, business and citizens' groups and concerned individuals.

Report Organization

The report is divided into three chapters. This Chapter I is an introduction which describes format and organization. Chapter II contains the responses to the concerns raised at the Public Hearing and in written comments. The Hearing Transcript and written comments from the various agencies, groups and individuals are reproduced in separate volumes.

Chapter III illustrates the proposed "post-hearing profile" and plan (the preferred alternative).

Format For Responses

Identification of Questions and Concerns

All substantive comments and/or questions raised at the Public Hearing or contained in the written statements were reviewed and categorized on the following basis: 1) project alternative in question; 2) neighborhood affected; and 3) the concern itself.

The term "substantive" is used herein to define a comment pertaining to an issue in terms of specific facts or conditions, or a question which requests clarification of a specific issue discussed in the E.I.A. or the Capital Grant Application.

No response has been made to comments citing a proposal generally, such as "for or against" the construction project or any of its elements.

In instances where the same substantive comment was made by several people, those comments were grouped into one comment which serves as a basis for a response. When the answer to a comment or question is contained in the E.I.A. or Capital Grant Application, the specific section or page is referenced in the response.

Table I.1 "Key to Categories of Concern" indicates each area of concern and the symbol which identifies it.

Tabulation of Comments and Questions

Table I.2 shows a summary of substantive comments and/or questions. The individuals who made comments are identified, as well as their residence, neighborhoods affected, and groups they represent, if applicable. The names of individuals submitting testimony on behalf of other parties who did not attend the hearing are shown in parenthesis.

The symbols shown in the column labelled "Category of Concerns" refer to those categories identified in Table I.1. Where no symbol is shown, the individual was supportive of the proposed construction project without reservation.

Comments and/or questions were made either at the Public Hearing, submitted in writing, or both. The column labelled "Hearing Comments" identified the appropriate volume and page of the Public Hearing Transcript where the comments can be found. An asterisk (*) denotes individuals who testified at the hearing and also submitted a written statement. All Public Hearing Testimony and submitted written statements are reproduced in separate volumes.

Establishment of a Post Hearing Profile and Plan

Meetings were held with representatives of groups and individuals who raised questions affecting the design and implications of the initially proposed "preferred alternative". Then groups and individuals were gathered on the basis of a mailing to the full General Mailing list for the Southwest Corridor Working Committee (over 1500 names and addresses). Several informal meetings were held resulting in a formal meeting of the Task Force on the Vertical Profile on 28 July 1976 at Haynes House, Roxbury.

As a result of this meeting, and with the unanimous approval of the Task Force, the "post hearing profile" shown in Chapter III has been adopted by the MBTA and the Mass. DPW as the proposed alternative for this project.

TABLE I.1

KEY TO CATEGORIES OF CONCERNS

PROJECTS

I	Orange Line Full Depression
II	Orange Line Moderate Depression
III	Orange Line on Penn Central Embankment
IV	Orange Line on Washington Street
V	Arterial Street Build on Eastern Alignment
VI	Arterial Street No Build

NEIGHBORHOODS

S.E.	South End	C.	Corridor-wide
R.	Roxbury	Reg.	Regional
J.P	Jamaica Plain		

CONCERNS

A	Visual Linkages
B	Functional Linkages
C	Noise and Vibration
D	Development Potential
E	Traffic Impacts (# of Vehicles, Kinds of Vehicles, Streets: Radial, Crosstown and Regional)
F	Employment and Jobs
G	Local Street Configurations (Widths, Alignments, and Channalization)
H	Ground Levels and Slopes
I	Railroad Service During Construction
J	Replacement Service - Orange Line and Railroad
K	Station Design
L	Takings
M	Air Pollution
N	Continuation of Participatory Process in Transportation Planning, Land Use and During Construction
O	Security (Crime)
P	Safety (From Trains, Traffic)
Q	Handicapped Access
R	Timing - Effect of Delay on Project Construction & Community
S	Emergency Vehicle Access
T	Flooding and Drainage
U	Temporary Street Crossings
V	Bus Loops and Configurations
W	Needham Branch
X	Forest Hills - Trolley Yards
Y	Historic Properties
Z	Cost/Level of Benefits
AA	Maintenance
BB	Construction Impacts (Noise, Dirt, Spoils Removal, etc.)
CC	Procedures
DD	Landscaping
EE	Extension of the Arterial beyond Forest Hills
FF	Circumferential Transit
GG	Signs in Spanish
HH	Miscellaneous

TABLE I.2

NAME	RESIDENCE	CATEGORY OF CONCERN		HEARING COMMENTS (vol., page)	ASSOCIATION
Alexander, James	South End		Y		South End Historical Society
Alt, James	Jamaica Plain	V	C,E	III - 3	
		II	C		
Amalfitano, James	Roxbury	II	L,C,M,B		The Third Nail, Inc.
Anagnos, Theodore	Jamaica Plain		R		
Annastis, Teddy	Jamaica Plain	V	C,M,T,BB	II - 79	
Arthur, Dwight	Needham	II	I,P		
Atherton, Frances	Jamaica Plain	V	C,M		Jamaica Plain Neighborhood House
		II	C,N,B		
Averi, Edward	Walpole	II	I		Walpole Board of Selectmen
Bailey, Rev. Dennis	Jamaica Plain	V	A,B,C,G	I - 28 *	Central Congregational Church
(Caroline Manson)	Jamaica Plain	V	A,B,C,G	I - 28	Central Congregational Church
Bass, Henry	Jamaica Plain	II, V	Z,R	I - 88	
Bassett, John	Brookline	II	A,B,R		
		V	B		
Bennett, Ruth	Jamaica Plain	V, II		III - 51	Greenough Avenue
Benson, June	Roslindale		R	II - 61 *	Cummins-Poplar-Seymour Civic Assoc.
Bernazzani, Bill	Needham	II	Z	II - 16	
Berry, Don	Region		F	I - 46	Int'l Brotherhood of Electrical Workers
Billovin, Silbert	Jamaica Plain	II, V	A,B,C,D,E F,G,J,L,M	II - 31	J.P. Bank & Mortgage Committee
Bishop, Elbert	Jamaica Plain Roxbury	II,V	A,B,C,D,E F,G,J,L,M	I - 69 *	Southwest Corridor Land Development Coalition
Blake, Donald	Jamaica Plain	V	G,E,D	II - 73 *	Neighborhood Coalition of Jamaica
		II	A,F,AA,D	III - 48	Plain
Bliss, Fred	Needham		Z		
Bond, Lewis	Roxbury	II	C,B,P,F	III - 7 *	Roxbury Community College
Borbeau, Dick	South End		J	II - 58	SEPAC Representative
Bowers, Thomas	West Roxbury		R		
Brabam, Harold	Region			III - 8 *	Roxbury Community College
Bradley, Madeline	Jamaica Plain	II, V	A,B		
Bragg, Kenneth B.	Jamaica Plain		R	II - 60 *	Rocky Springvale Civic Assoc.
Bresnahan, Rev. Paul	Hyde Park		R		Hyde Park Rotary Club
Brooke, Senator Edward	Region		A,B,D,F	I - 96 *	U.S. Senate
Bryant, Rev. Bradford	South End		R		Church of All Nations
Buchwald, Albert	Jamaica Plain		R	II - 41 *	Boylston-Lamartine-Centre Civic Assoc
Burns, Caroline	Jamaica Plain		R		

NAME	RESIDENCE	CATEGORY OF CONCERN		HEARING COMMENTS (vol., page)	ASSOCIATION
Caldwell, Irene	Jamaica Plain	VI	E	I - 62	
Capizzo, Gus A.	Jamaica Plain		R,F	III - 45 *	Green Street
Cardona, Juan	Jamaica Plain	II, V	A,B,C,F G,M,P	I - 27	Spanish Office of Jamaica Plain
Case, John M.	Wellesley		I		
Casey, Grace	Jamaica Plain		R		
Casey, Richard	Jamaica Plain		R		
Cawthorne, Lee	Jamaica Plain	V	E		Woodbourne Association
Chaffee, Janet	Roxbury	V	C,M		
Chesebrough, Wilfred	Norwood	I,II,V	Z,R,I	II - 10 *	Norwood Board of Selectmen
Clemenzi, John	Hamilton		R		Battista Clemenzi Plastering Co., Inc.
Cloherty, Charles E.	Jamaica Plain	V	B,D,M,A,E	II - 62 *	Brookside Park Family Life Center
Cloherty, Edwina	Jamaica Plain	V	G,C,M,P,N,E		Parkside Neighborhood
Colbert, R. Britton	Milton	II			
Conroy, Catherine	Roslindale	II	I		
Cooper, Ila	West Roxbury	V	F		
Coradi, Edward	Jamaica Plain	II	B,D,A	II - 102	
		V	C,M,E,A,B		
Corrigan, Rev. Thomas	Region		F,D,E		
Cox, Russell	Norwood		I		
Craven, Rep. James	Jamaica Plain		R,C,E,D	II - 37 *	Mass. House of Representatives
Craven, John	Jamaica Plain		R		
Crotty, Ed	Jamaica Plain	II, V			
Culbreath, Elizabeth	Roxbury		R		
Danovitch, Rep. Alan	Walpole	II	I		Mass. House of Representatives
Davoren, John F.X.	Region		F	I - 25	Mass. Building and Construction Trades Council
Delaney, Lee	Jamaica Plain	V	E,N		
Denbow, Lawrence	Boston	V	G,P,C,M		City Wide Elderly Task Force
Dickson, Calvin	Roxbury	II, V	A,B,C,D,E F,G,J,L,M	III - 27	New Life Presbyterian Church
Dickinson, Robert	West Roxbury		R		West Roxbury Advisory Council
Dilday, Clarence	Roxbury	II	B	III - 20	
Dineen, Joseph	Westwood	II	I		
Dolan, John	Jamaica Plain	I, II	Z, BB	III - 38	
		V	E		
Donegan, Stephen	Jamaica Plain	II	I	III - 28	Forest Hills merchant
Doogan, James	Walpole	II	E,I		

NAME	RESIDENCE	CATEGORY OF CONCERN		HEARING COMMENTS (vol., page)	ASSOCIATION
Doogan, Ruth	Walpole	II	E,I		
Downey, Leo X.	Boston		R		Central Improvement Assoc.
Doyle, Joseph	Jamaica Plain		R	II - 49 *	Jamaica Plain Safe Streets Committee
Driscoll, Kathleen (G.M. Kendrigan)	Worcester		I	II - 14 *	
Dubinsky, Jan	Jamaica Plain		HH		
Duhms, Linda	Billerica		R		
Dunham, Stephen	South End		R		
Emse, Felix	Mansfield	V II	I		
English, Doris	Jamaica Plain	II, V	A,P,L	I - 88	
Fandel, Rose	Jamaica Plain		R		
Faramelli, Rev. Norman	Region	II, V	C,D,F,A,B	I - 103	Association for Public Transporation
Fennessey, Thomas	Needham		W	I - 80	Needham Planning Board
Fenton, Chester	Jamaica Plain	II, V	C,G		
Findlen, Robert	Dedham		R		
Fitzgerald, Rep. Kevin	Jamaica Plain		A,C,N,O	I - 44	Mass. House of Representatives
Foley, Charles	Needham	II,	I		
Foley, Mary	Norwood	II,	I		
Fortune, Walter	Roxbury	II, V	A,B,C,D,E F,G,J,L,M		Mission Hill Planning Commission
Fox, Gloria	Roxbury	II, V	A,B,C,D,E F,G,J,L,M	III - 28	
Fox, Jean	Needham		R,C,M,W	II - 49 *	League of Women Voters, Needham
Frank, Jonathan	Jamaica Plain	V, II	E,C,M,B,D,P F	II - 82	Jamaica Plain Youth Advocacy Board
Frasso, Theresa	Jamaica Plain		R		
Frazier, Clark	South End	II V	Y,G,U,W G,K,Y,E	II - 70 *	SEPAC - South End Committee on Transportation
Fuentes, Miguel	Roxbury		L	I - 105	Roxbury Crossing merchant
Fullerton, Jerry	Jamaica Plain	V	B,P	III - 13	
Gallaher, James	Region		R		New England Mutual Life Insurance Co.
Gately, Irene	Jamaica Plain		R		
Giandomenico, Richard	Jamaica Plain		R		Kilgarriffs Cafe (merchant)

NAME	RESIDENCE	CATEGORY OF CONCERN		HEARING COMMENTS (vol., page)	ASSOCIATION
Gill, Frances	Jamaica Plain		R		
Gilfinnian, Eugene	South End			I - 64	Claremont Neighborhood Association
Gilmore, Marvin	Roxbury/Regional		F,N	III - 21 *	Community Development Corp of Boston
Giunta, George	Needham		W		Planning Board of Needham
Godino, Robert	West Roxbury	II, V	I,W,E,K	II - 32	West Roxbury Local Advisory Council
Goode, Rep. Mary	Roxbury	II	F,N	III - 4	Mass. House of Representatives
Goodrich, John	South End		G,C	II - 21 *	South End/St. Botolph Task Force
Gopen, Marty	South End		F	II - 24	United South End Settlements
Grey, Eric	Region		J	III - 29	
Griffin, Paul M.	Region			I - 98 *	Construction Industries of Mass.
Hafer, Ron	Jamaica Plain	II, V	B,C,M,A	II - 14	Southwest Corridor Coalition
Heggerity, Frank	Jamaica Plain		S,R,E	II - 68	Jamaica Plain Community Council
Hale, Beatrick	Roxbury	II	A,B,P	III - 32	Whittier Street Development
Hammer, Arthur	Roslindale	V	E		
Hanley, Henry	Pawtucket, RI		I		
Hanley, Matthew & Elaine	Jamaica Plain		R		
Hansen, Fred	Region		F	I - 30	Mass. State Building Trades
Hanson, Erling	Jamaica Plain		R		Hanson Contracting Company
Hardenbergh, Mary Anne	Hyde Park			I - 18	League of Women Voters, Hyde Park
Harris, Leslie	Roxbury	V			
Hayes, Michael	Jamaica Plain		R		Chestnut Civic Association
Healet, Elizabeth	Jamaica Plain		B,E	I - 61	
Heerde, Charlotte	Jamaica Plain		R		
Hersey, Henry	Needham		W	I - 80 *	MBTA Advisory Board
Hershfang, Ann	South End	II	C,J,K,L,M N,BB	II - 44	South End Committee on Transportation
		V	E		
Hill, Geary	Jamaica Plain	II	C,P	III - 15 *	Fordham Court Tenant Association
		V	F,P,AA		
Hines, Margery	Dedham		I		
Hobbs, Christopher	Jamaica Plain	II, V	B,E,C,M,A	I - 94	
Holcombe, Waldo	Milton		DD		Neponset Conservation Association
Houghton, Elizabeth	Weston			III - 112	
Hourihan, William	Jamaica Plain		R		
Howze, Alpha L.	Roxbury	II, V	A,B,C,D,E F,G,J,L,M	III - 18 *	Roxbury Multi-Service Center
Hughes, Thomas	Jamaica Plain		R		Ward 19 Civic Club

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Hunkel, Janet	South End	II	A,B,C,L, O,P,D,J	I - 65 *	South End/St. Botolph Task Force
Hurst, Rick	Walpole	II	I,Z,W	II - 25	MBTA Advisory Board
Ianella, Christopher Councilman	Jamaica Plain	II	D,DD	II - 23	Boston City Council
Jackson, Herb	Roxbury	V		III - 16 *	Roxbury Multi-Service Center
Jones, Hugh (G.M. Kendrigan)	Region	II, V	I,W	II - 35 *	Stone & Webster Engineering Company
Jones, Patrick	Dorchester		R		Lena Park Community Development Corp.
Joyce, Joseph	Jamaica Plain		R		
Kahn, Charlotte	Roxbury	V	E,P,M,D A,B		SEPAC representative
Kane, Margaret	Roslindale	V	EE		
Kane, Michael	South End	II	C,F,G,J,L	II - 28	SEPAC
Kane, William	Region		N,Y,DD,F,D	I - 71 *	Association Gen'l Contracters of Mass. Building Trades Assoc. of Mass.
Karg, William	South End				
Kendrigan, G.M.	Region	II	I,W	II - 52 *	
Kenney, John J., Jr.	Jamaica Plain		A,B,E	II - 78	Hennigan Community School Council
Kenney, Robert (Alfred Howard)	Region	II, V	E,G,J,C,D	I - 37 *	Boston Redevelopment Authority
Kiely, Eugene F.	Jamaica Plain		R	II - 50 *	Forest Hills Public Improvement Committee
Kiley, Robert R.	Region			I - 11	Chairman, Massachusetts By Transportation Authority
Killeen, Francis	Jamaica Plain	II V	B,N P,C	II - 27 *	Jamaica Plain Neighborhood House
Killeen, Francis & Winnifred	Jamaica Plain		R		
Kimball, Dierdra	Jamaica Plain	II, V	B,C,M,P	II - 64	Southern Jamaica Plain Community Health Center
King, Rep. Melvin	Region	II	B,F,N	III - 24	Mass. House of Representatives
Kreismanis, Terge	Jamaica Plain		R		

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Kunz, Eben	South End	II	A,B,C,D,F	I - 49 *	
Kuttner, William	Roxbury	V			
Landsmark, Ted	Roxbury	II, V	A,B,C,D,E F,G,J,L,M	III - 31	Contractor's Association of Boston
Langer, Alexander	Jamaica Plain				
Langer, Rose	Jamaica Plain				
Lanier, Elizabeth	Jamaica Plain	V	P,E		
Larkin, Mary	Jamaica Plain		R		
Leary, Richard	Needham		R		
LeClair, John	Jamaica Plain		R		Monument Civic Association
Lemarik, Beth	Needham	II	W,I		
Lester, Steve	Jamaica Plain		B		
Levine, Mark	Jamaica Plain	II, V	A,B,C,D,E F,H,L,N,P	I - 86	
Lewis, Senator Arthur	Roslindale		A	II - 2	Massachusetts State Senate
Lewis, David	Boston		R		CBI Corporation
Lewis, Teresa	Jamaica Plain	II,V	G,C,M,E	II - 90	Lawndale Neighborhood Association
Lieprins, Baiba	Jamaica Plain		R		
Lieprins, K.	Jamaica Plain		R		
Lieprins, R.	Jamaica Plain		R		
Long, Herb (Delores Primm)	Roxbury	II, V	A,B,C,D,E F,G,J,L,M	III - 18	Pyramid Development
Lovinger, Robert	Boston		Q		Tufts, New England Medical Center
Lowell, Ralph	Needham	II	W,I		
MacInnis, Alec & Rita	Jamaica Plain	V	C,E,M		
Marr, Daniel	South Boston		R		Daniel Marr & Sons Company
Martin, Lorraine	Jamaica Plain	V	E		
Mathis, Robert	Holbrook		R		Allied Cork, Inc.
McClure, John	Jamaica Plain		R	III - 43	
McGrimley, Thomas	Jamaica Plain		R,D	II - 42	Forest Hills Improvement Association
McIntyre, Cassie	Roxbury	II, V	A,B,C,D,E F,G,J,L,M	III - 18	Women's Improvement League of Roxbury
McIntyre, Daniel	Jamaica Plain		R,F	III - 44	
McLeod, Bruce	Needham		I		
McMillan, Thomas R. (G.M. Kendrigan)	Sharon	II, V	I	II - 51 *	

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McNally, Gerald	Somerset		R		Gerald McNally Company
Metten, William	Jamaica Plain	II, V	C,M,E		
Meyer, Herbert M.	Region		T	I - 74 *	Metropolitan Watershed Group
Mikalowski, Mary	Jamaica Plain		R	II - 81	
Minich, Joanne	Wellesley	II, V	I		
Mitchell, Beverly	Boston	II	A,C,D,F,J P,Q,Y,DD,V	II - 7 *	League of Women Voters, Boston
		V			
Mittell, David A., Jr.	Jamaica Plain	II	B,C,L,F,D,N	II - 96 *	
		V	D,E		
Moore, Blanche	Roslindale		R	II - 60 *	Mt. Hope Betterment Association
Moore, Florence	South End		L,J	I - 102	Cosmopolitan Neighborhood Assoc./South End
Morrison, George	Roxbury		N	III - 23	Roxbury Action Program
Morrisey, Kermit	Boston		R		Boston State College
Morse, David	Jamaica Plain		R		
Mulvey, Philip F.	Needham		W,K	I - 81 *	
Murphy, Edward	Newton		R		
Naylor, Ann	South End		J,L	II - 56	Eight Streets Neighborhood Assoc./S. End
Neider, Henry	Jamaica Plain	II, III, IV, V	A,B	III - 47	
Nelson, Constance	Jamaica Plain	II, V	A,B,C,E M,P	I - 99 *	
Nelson, Robert	Boston		R	*	
O'Bryant, John	Boston			III - 10	Roxbury Community College Advisory Board
O'Donnel, Harry	Region		F	I - 24	Boston Building & Contractors Trades Council
O'Laughlin, Francis	Westwood		R	II - 41 *	Lamartine-Atherton-Mozart Civic Assoc.
Oliver, Charles	Needham		I		
O'Malley, Tom	Jamaica Plain	V	Z,C,M,P,B,E	II - 92	
Orange, Winnifred	Jamaica Plain				
Oshima, William	Boston		F,D		Local Development of the South End
Pangaro, Anthony	Boston			I - 12	Southwest Corridor Development Coordinator
Parker, Ruth	Jamaica Plain		N,E	I - 56	Jamaica Plain Civic Association
Peacock, Eleanor	Jamaica Plain	V	E,C,M	II - 84 *	Neighborhood Coalition of Jamaica Plain

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Perkins, Frances	Jamaica Plain	V	B,E		
Pierce, Richard	Roxbury		R		Roxbury Civic & Industrial Foundation
Pino, John	Jamaica Plain		R		
Plunkett, Jack	Jamaica Plain	II, V	C,M,A,B	II - 92	Jamaica Plain South Association
Primm, Delores	Roxbury		R	III - 35	
Puleo, Stefana	Jamaica Plain		R,E	II - 61 *	
Quigley, Helen	Jamaica Plain	V	C,M		
Radlo, Justin L.				I - 10	Department of Public Works
Raghavan, Chitra	Newtonville		I		
Redd, Edward	Roxbury	II, V	F,J,N,A,B	I - 92 *	Boston Branch NAACP
Reilly, Frank	Roxbury		R		
Reynolds, Loretta	Needham		W	I - 79 *	Needham Board of Selectmen
Riley, John	Jamaica Plain	V			
Riley, Mary	Jamaica Plain	V	E		
Robash, Karl	Roslindale		R		
Robertson, Carl	Roxbury	II, V	A,B,C,D,E F,G,J,L,M	III - 42	ABCD Neighborhood Service Center
Robinson, Katherine		II	C	I - 100*	
Rosenbaum, Femke	Jamaica Plain	V	C,M,E,BB		
Rosenbaum, Peter	Jamaica Plain	II, V	C,D,E,M	I - 110	Spring Park/Boylston St Neighborhood Assoc.
Ruddock, Robert	Region		I	I - 29 *	Chamber of Commerce, Boston
Ryan, Tom	South Boston		R		Shaughnessy Crane Service
Ryan, Walter	Region		F	I - 22	Operating Engineer, Local Union #4
Ryder, Kenneth	Boston		R		Northeastern University
Saltonstall, Leverett	Needham		I		
Saunders, Stephen	Roslindale		I		
Stavski, Dean	Jamaica Plain	II, V	E	I - 78	Mass. Construction Advancement Program
Schwartz, Joseph	Region			I - 53	Roslindale Board of Trade
Shufro, Arnold	Roslindale		W,E,EE	II - 3	
Silverman, Eleanore	Boston		B		
Small, Mark L.	Sharon		I		
Small, Thomas L.	Dover		I		
Smith, Dauna L.	Jamaica Plain	V	G,P	II - 91 *	

NAME	RESIDENCE	CATEGORY	OF CONCERNS	HEARING COMMENTS (vol., page)	ASSOCIATION
				*	
Smith, Nate	Jamaica Plain	II, V	C,M,E		
Smith, Ralph (Dan Richardson)	Roxbury		J,K,B	III - 32 *	Lower Roxbury Community Corporation
Smith, Walter	Roxbury	II	C,B,P,F	III - 5	Roxbury Community College
Snowdon, Otto	Roxbury		R	III - 18	Freedom House
Solomon, Joel	Jamaica Plain		I,T,O,Z		
Spears, John	Jamaica Plain		E	I - 58	
Staley, John	Newtonville		I		
Straight, Susan Commissioner	Region	V	D,T,X	I - 36 *	Boston Conservation Commission
Stukl, Gertrude	Hyde Park		I		
Sturgis, Robert	Cambridge	II, V	A,B,C,D,E F,G,J,L,M		
Sullivan, John J.	Jamaica Plain		R		John J. Sullivan Co.
Sullivan, Lawrence C.	Region		F	I - 26	Greater Boston Labor Council AFL/CIO
Tangney, Eileen	Roslindale		I		
Tedeschi, Louis	Roxbury		R		
Thibeault, William	Canton		I	I - 54 *	Canton Board of Selectmen
Thomson, Vivienne	Jamaica Plain		Q,R	II - 5 *	Massachusetts Assoc. of Paraplegics
Thompson, Samuel (Steven Giddings)	Roxbury	II	A,B,G,K	I - 19 *	Boston Redevelopment Authority
Torrado, Miguel (Jorge Hernandez)	Region		A,B,D,F J,T,G,L,GG	I - 106*	Hispanic Office of Planning & Evaluation
Tichnor, Alan	Jamaica Plain		D,F	I - 84 *	
Tuohey, Mr.	Jamaica Plain		R	II - 43 *	Wardell Civic Association
Ulrey, Jerry	Fenway	II	B,C,D,E,FF N,V,A,K,EE	II - 62	Fenway Project Area Committee
Venutti, John	Jamaica Plain	II, V	E,C,M D,P	II - 76	Neighborhood Coalition of Jamaica Plain
Verrett, John	Sharon		I		
Vitagliano, John	Region		R		Housing Inspection Department, City of Boston
Walsh, John	West Roxbury	II			
Walsh, Richard	Jamaica Plain	II	A,B		
		V	A,B,C,M,P	III - 41	

NAME	RESIDENCE	CATEGORY OF CONCERNS		HEARING COMMENTS (vol., page)	ASSOCIATION
Watson, Richard	Roxbury	II, V	C,M,P	I - 108	Jamaica Plain/Roxbury Food Coop
Watts, Mattie	Jamaica Plain		R		
Wepsic, Karen	Jamaica Plain		L, DD	III - 12	
Wheeler, Mary	Jamaica Plain	II, V	A,C,M,P	I - 77 *	
White, Mayor Kevin (Emily Lloyd)	Region	II, V	A,B,C,G,U	I - 31 *	City of Boston, Mayor's Office
White, Robert	Jamaica Plain		R		
Wilson, Ronald	Jamaica Plain	V	L		
Winbourne, Susan	Jamaica Plain	V	B		
Woletko, Louise			N	I - 60	
Zaitzesky, Whit	Jamaica Plain	II, V	E		Jamaica Pond Association
Petition (8 signatures)	Jamaica Plain		L		
Petition (37 signatures)	Jamaica Plain				
Petition (54 signatures)					
Petition (50 signatures)					
Petition (1500 signatures)	Jamaica Plain	V	E,B,C,M		
Petition (465 signatures)	Stone & Webster		I		
Petition (2400 signatures)	rail passengers		I		
Petition (800 signatures)	West Roxbury & Roslindale		R		

Chapter II

RESPONSES TO QUESTIONS AND CONCERNS

A. and B. VISUAL AND FUNCTIONAL LINKAGES

"The design of the relocated Orange Line and Arterial Street should provide the setting by which communities presently visually and functionally separated can once again become one." "Grades should not obstruct views from residences at Bromley-Heath or Mission Hill Housing Developments and should be held 6 to 8 feet below window sill heights at the building line."

Barriers to neighborhood coherence may be either physical or psychological. Physical and psychological barriers are currently present in the form of the existing 15-20 foot high railroad embankment. This structure can be penetrated and crossed only at discrete points, the perpendicular streets which occur as major traffic ways. In Jamaica Plain only two additional pedestrian crossings exist (one at Lawndale Terrace and the other at Morton Street). While the removal of the embankment will make crossings theoretically possible at any location, the practical necessity of bridging the railroad/transit "cut" will limit this theoretically infinite ability. Furthermore, unlimited public pedestrian access across the rail facilities would make unclear the distinction between public and private domains which is necessary to maintain security.

Perhaps the most important impact of embankment removal is the psychological effect. This effect can be characterized as primarily resulting from visual connections from one side of the tracks to the other, and from removal of the blank granite walls which support the current railroad alignment. The removal of the embankment and reconstruction of the right-of-way in the new "Post Hearing Profile" will be accomplished in such a way as to permit visual continuity. This continuity is most important at streets which cross the right-of-way, since it is there that pedestrian and automovement will be concentrated.

Further, future air-rights construction or building construction adjacent to the right-of-way will block such visual access between cross streets as it would in a typical city block. For these reasons, visual connections are most important at cross streets, and these "visual corridors" must be kept open through careful determination of the project's vertical profile which should be constructed to allow maximum visual access consistant with the limits of the natural topography. The "Post Hearing Profile" of the proposed transit/railroad facility and the arterial street has been drawn with this objective in mind, and is the preferred alternative of the MBTA.

Functional linkages from east to west across the rail/transit/arterial right-of-way are of several types. Auto, bus and pedestrian access from the different sectors of each neighborhood should be maintained or improved in such a way as to:

1. encourage the connections from the Stony Brook and Washington Street neighborhoods to Jamaica Plain areas to the west of the railroad.
2. encourage the use of Roxbury Crossing and Jackson Square as meeting places for commerce and work in Roxbury.
3. allow the easy movement of children, the handicapped, and the elderly to shcools, churches, and places of business in the neighborhoods as a whole.

These linkages will be facilitiated in the "Post Hearing Profile" which has been drawn within the following criteria:

a) no new street gradient, parallel or perpendicular to the tracks will exceed 5%. This rise, approximately 5 feet per 100 feet of horizontal run is easily traversed in all weather conditions. In additon, existing downgrades currently as steep as 12% will be eased to facilitate this linkage.

New street gradients over the rail right-of-way are approximately as follows:

	Existing Grade		"Post-Hearing Profile" Proposed Grade	
	East	West	East	West
Ruggles Street	Level (4" sag)	Level	+ 1%	+2.5%
Prentiss Street	-2%	Level	+2%	+5%
Tremont Street	Level to -3%	-3 to -5%	Level	Level
Cedar Street	-12%	n.a.	-5%	Level
New Heath Street	-9%	-3%	-5%	+3%
Heath Street	-5%	- 2%	+2%	+3%
Centre Street	Level	-5%	+2%	+2% (2' sag)
Atherton/Mozart Street	-6%	-7%	Level	+2% (4' sag)
Boylston Street	- 2%	-2%	+4%	+3% (6' sag)
Minton St/Loren Road	n.a.	n.a.	+4%	+1%
Green Street	Level	-3%	+3%	Level
Gordon Street	n.a.	-6%	n.a.	-4%
Williams Street	Level	-5%	+5%	+2% (3' sag)
McBride Street	Level	+1%	+5%	+2.5%
Morton Street	Level	-5%	+4%	+1%

b) Cross street at new transit stations will be reconstructed as necessary to achieve the above listed gradients, and in addition will be designed to facilitate pedestrian movement across the rail facility and to new stations. Such reconstruction will consist of new paving of travel lanes (to existing street widths) pedestrian sidewalks and paths, new street landscaping (trees, signs, benches and lighting). Such designs will preserve and enhance pedestrian scale and personal safety. At the Bromley Heath and Mission Hill housing developments, where grade adjustments will entail the filling of certain areas, new or replacement pedestrian walkways will be constructed to facilitate pedestrian movement, security and patronage at new stations. These access ways will based upon expected predominant pedestrian movements and will be made secure through appropriate fencing and lighting.

c) Acoustic decks to be provided at the Mission Hill and Bromley Heath housing developments will be located at elevations which place them at, or immediately above, the ground elevations within the housing areas. In no case will such deck levels be located above window sills in the first floor dwelling units nearest the deck areas. In this way, line of sight observation of activities on such decks will be possible and will provide for surveillance of such areas by residents from within their dwellings. The activities on these decks will serve as additional meeting places that are visually and physically accessable to residents living on both sides of the Corridor. Grades at the building lines in these housing developments will be held from 6 to 8 feet or more below window sills to promote the security for residents.

d) Connections from the proposed "green belt" would be to such deck areas and would be signalled by coordinated landscaping and lighting in order to further enhance the linking aspect of the Corridor's function. (This linkage concept is illustrated in Figure A-14 of Appendix A in the E.I.A.,which shows landscaped links to existing streets, parks, and institutions from the Corridor.

The arterial street in Jamaica Plain, if it should be built and street facility, is of critical concern in the contemplation of such transverse linkages across the rail facility. The design of the arterial is of paramount importance in the perception of such visual linkages. First, any arterial must be perceived as "approachable". That is, pedestrian must view it as consistant in size and scale as other local streets. It must be carefully landscaped so that it does not become a "clear'cut" zone in which no plant material will be permitted to grow. Pavement widths for vehicular travel should be kept to a minimum, with no continuous shoulders permitted to widen the pave area. Sidewalks should contain premium pedestrian treatments, with benches, signs, and tree planting carefully detailed.

No "Free Right Turn" channelization of vehicular traffic should occur as this increases traffic speed and flow and inhibits pedestrian approachability.

Signal phasing and pedestrian activated crossing signals should be designed to allow maximum "green time" for cross Corridor pedestrian and vehicular movements so that intraneighborhood linkages are enhanced.

The single greatest obstacle to adequate cross-town linkages is the traffic volume itself. Volumes projected at arterial segment #3 are of significant magnitude. The virtue of any such arterial must lie in its ability to divert traffic from adjacent parallel streets and to improve cross corridor connections across those streets. The reduction in such traffic volumes (Center Street from 12,500 to 10,000. Lamartine Street from 10,000 to 1,000 , Amory Street from 9,000 to 3,500 , and Washington Street from 21,000 to 13,000 all figures are year 2000, 24 hour A.D.T. volumes) essentially represents a shift in such barriers from a series of local commercial or residential streets to the Corridor, where traffic would parallel the transit/railroad facility and be buffered by virtue of the proposed Green Belt and planting areas which run alongside the facilities. The concentration of such traffic in one rather than in 3 or 4 streets is basic premise of the arterial. In order to be successful, and not just an additional obstacle to neighborhood cohesion, its design must be carefully balanced with traffic management techniques which should be used on other streets. For example, measures to diffuse and divert traffic from Lamartine and Amory Streets would include selective dead-ending and contraflow one way routings. Furthermore, any arterial should not be designed to such standards so as to significantly increase total traffic volume across a corridor area out through Jamaica Plain.

C. NOISE AND VIBRATION

"The modified depressed alternative is significantly noiser than the fully depressed alternative." "Noise projections for the period beyond the year 2000 should be made." "The arterial will increase noise levels in Jamaica Plain." "Continuous covers should be provided in the South End." "Will the transit project cause vibration of houses abutting the right-of-way." "Have the noise impacts of train generation been brought to the attention of abuttors, particularly along the Midland Division."

Noise monitoring of existing rail and street facilities was accomplished during the performance of the E.I.A. and is documented

in Figures H-1 to H-12 in Appendix H of the E.I.A. In addition, projections of noise levels were made for the year 2000 and are also shown at 3 levels (62, 67 and 72 dbA) in plan illustrations for all alternatives.

a) During the opening year of the proposed project rail volumes will be greater than existing conditions, especially due to the introduction of the Orange Line, but the total volume will not be as great as in the year 2000. Furthermore, the percent of trains with electric locomotives will be smaller in the opening year than in the year 2000. For these reasons, noise levels during the opening year may differ from those shown by the contours.

The assumptions concerning train volumes and speeds used to predict noise for the year 2000 are discussed on page 5-78 of the E.I.A. and Figures V-33 and V-34. In order to compare the year 2000 noise levels with noise levels in the opening year the following assumptions were used for opening year peak hour volumes:

1. The Orange Line will operate at four-minute headways with six-car trains. The maximum speed between stations will be 45 mph.

2. The total number of inbound commuter and Amtrak trains during morning rush hour will be:

   a. six diesel locomotive trains.

   b. six self-propelled diesel car trains (Budd lines)

   c. two electric locomotive Amtrak trains.

3. In peak hour half of the inbound trains will reverse direction.

4. The average train length will be six cars.

5. Speeds will be similar to those shown in Figure V-34 of the E.I.A.

Based on these above assumptions, noise levels due to train movements in the opening year will be approximately only one decibel less than the levels predicted for the year 2000. For the portions of the alignment with a new arterial road alongside the rail right-of-way, the noise contours are for the combined noise of the rail noise and the arterial noise. For these portions, and with the rail in the full or modified depression, the arterial road is generally the dominant noise source. Therefore, in the opening year, a one decibel reduction in the rail noise is not significant and the levels as shown by

the contours are still valid. For those portions of the alignment with no new arterial alongside the rail right-of-way, the contours for the year 2000 are approximately one decibel higher than for the opening year. It should be kept in mind that a one decibel difference is insignificant.

In Roxbury and Jamaica Plain the effects of the modified depressed alternative upon these noise levels are clear upon examination of plan illustrations for this alternative. Comparisons with the other alternatives are also useful in an evaluation of the incremental utility of each alternative beyond the base case of the Embanked Alternate.

This analysis reveals the following noise levels (db eg A for the peak hours) at key reception along the Corridor.

NOISE LEVELS VS. DISTANCE FROM CORRIDOR

(● Indicates Critical Receptor Location)

Distance	200'	150'	100'	50'	50'	100'	150'	200'
				WEST	EAST			

Location	Alternative		Noise Level							
Mission Hill (#4)	Embankment	FH-4 ART	<67	<67	<67	●67	<72	<72	<72	<67
		FH-3 N-ART	<72	<72	<72	●72	<72	67	<67	<67
	Modified	FH-5 ART	<62	<62	<62	●62	<72	<72	<67	62
		FH-6 N-ART	<62	<62	<62	●62	<72	<72	<67	62
	Depressed	FH-2 ART	<62	<62	<62	●<67	<72	<72	<72	<67
		FH-1 N-ART	<62	<62	<62	●62	<62	<62	<62	<62
	W = From W-side of tracks; E = ART : From E-sidewalk Arterial St. E = N-ART: From E-sidewalk Columbus Ave									
Bromley-Heath (#5)	Embankment	FH-4 ART	<67	<67	<67	●<72	>72	<72	<72	<67
		FH-3 N-ART	<67	<67	<67	●<72	<72	<67	<67	<62
	Modified	FH-5 ART	<62	<62	<62	●<62	<72	<72	<67	<67
		FH-6 N-ART	<62	<62	<62	●<62	<72	<67	<67	<67
	Depressed	FH-2 ART	<62	<62	<62	●<67	<72	<72	<67	<67
		FH-1 N-ART	<62	<62	<62	●<62	<62	<62	<62	<62
	W = From retaining wall; E = ART : From E-sidewalk Arterial St. E = N-ART: From E-sidewalk Centre St.									
College Site (#6)	Embankment	FH-4 ART	<62	<62	<62	<67	>72	●<72	<72	<72
		FH-3 N-ART	<62	<62	<67	<72	<72	●<72	<67	<67
	Modified	FH-5 ART	<62	<62	<67	<72	<72	●<72	<67	<67
		FH-6 N-ART	<62	<62	<67	<72	<72	●<72	<67	<67
	Depressed	FH-2 ART	<62	<62	<62	<67	<72	●<72	<67	<67
		FH-1 N-ART	<62	<62	<62	<67	<62	●<62	<62	<62
	W = From W-side of tracks; E = ART : From E-sidewalk Arterial St. = N-ART: From E-sidewalk Columbus Ave									

NOISE LEVEL VS. DISTANCE FROM CORRIDOR

(● Indicates Critical Receptor Location)

Distance	200'	150'	100'	50'	50'	100'	150'	200'
					WEST — EAST			

Location	Alternative		Noise Level							
High School S.W. II (#1)	Embankment	FH-4 ART	< 62	< 67	<67	<72	●>72	<62	<62	<62
		FH-3 N-ART	<67	<67	<62	<62	●>72	<62	<62	<62
	Modified	FH-5 ART	<72	<67	<67	<67	●>72	<62	<62	<62
		FH-6 N-ART	<62	<62	<67	<67	●<72	<62	<62	<62
	Depressed	FH-2 ART	<62	<62	<67	<72	●>72	<62	<62	<62
		FH-1 N-ART	<62	<62	<67	<67	●<72	<62	<62	<62
	All distances from edges of tracks.									
Boylston Congregational Church (#2)	Embankment	FH-4 ART	<62	<67	<72	<72	<72	<72	●<67	<62
		FH-3 N-ART	<72	<67	<72	>72	>72	<72	●<67	<67
	Modified	FH-5 ART	<62	<67	<72	<72	<67	<67	●<67	<62
		FH-6 N-ART	<62	<67	<67	<67	<72	<67	<67	●<62
	Depressed	FH-2 ART	<62	<62	<67	<72	<72	<67	●<62	<62
		FH-1 N-ART	<62	<62	<62	<62	<62	<62	<62	●<62
	All distances from edges of tracks.									
Amory Street Apartments (#3)	Embankment	FH-4 ART	<72	<72	>72	>72	<72	<72	●<67	<62
		FH-3 N-ART	<72	<72	>72	>72	>72	>72	>72	●<72
	Modified	FH-5 ART	<67	<67	<72	<72	<72	<72	<67	●<67
		FH-6 N-ART	<67	<67	<67	<72	>72	<72	<72	●<67
	Depressed	FH-2 ART	<62	<67	<67	<72	<72	<72	<67	●<67
		FH-1 N-ART	<62	<62	<67	<67	<67	<62	<62	●<62

W = From W-side of tracks; E = ART: From E-sidewalk of Arterial
N-ART: From E-side of tracks

The MBTA has drawn a new profile, the "Post Hearing Profile" for the proposed elevations of the railroad/transit/arterial corridor. This profile would produce noise levels similar to those in the fully depressed profile at the above-listed sensitive receptors. Fill slopes would provide noise barriers that are the equivalent in reflective value to the full cut described in the fully depressed alternative. In no case would noise levels be greater than in the "modified depressed" alternative. These noise levels are considered acceptable according to standards derived in the E.I.A. (see pages H-5 and H-6 of the Appendix H).

b) The E.I.A. discusses both peak (or maximum) noise levels and average noise levels (L_{eq}). The peak noise level during a given period of time is just the highest level one would read on sound level meters. For traffic noise, it would probably be due to the passage of a loud truck or a motorcycle. Peak noise levels in Jamaica Plain from traffic will be approximately the same whether or not the arterial is constructed.

The average noise level, L_{eq}, which is the noise level scale that was used for the noise contours, depends not only on the noise level of individual vehicles but also the number of vehicles that pass in a given period of time. The average noise level is the equivalent steady noise level that contains as much sound energy as the fluctuating sound level. The peak sound level is used to describe the noisiness of a single event, and the average noise level is used to describe the noise environment or climent.

If the traffic on a road is doubled, the total sound energy is also doubled. However, because the sound level is proportional to the logarithm of the sound energy, the average sound level only increases by three decibels.

If the arterial is built in Jamaica Plain, the traffic volume along what is now Amory Street would increase from about 7000 vehicles per day to about 24,000 vehicles per day. The corresponding increase in the average noise level would be approximately five decibels. This is a large enough change to be clearly noticeable. On the other hand, it is expected that construction of the arterial in Jamaica Plain would reduce traffic on Lamartine Street from about 7000 vehicles per day to 300 vehicles per day. The corresponding reduction in the average noise level would be approximately 13 decibels.

Construction of the arterial street would lead to a redistribution of traffic and consequently a redistribution of the traffic noise. Clearly the areas directly adjacent to the proposed arterial would notice an increase in the average noise level, and areas not adjacent to the arterial would notice a decrease.

In the South End revisions are made to the area to be covered. The area from Darmouth Street to Massachusetts Avenue will be subject to the same treatment in terms of noise enclosure. That is, this length will have a continuous noise wall with a continuous acoustic deck. Revisions to the windows in existing buildings will be made to allow such a cover to be installed immediately.

Covers to be located between Dartmouth Street and Yarmouth Street and between Albemarle Street and Massachusetts Avenue will be constructed of materials that can be removed and replaced upon the development of air-rights at such locations. A noise barrier will be continued at the Massachusetts Avenue Station so as to protect the newly renovated housing adjacent to the tracks and the housing development sites to the north from excessive noise levels.

Vibrations levels are treated in (Appendix H of the E.I.A. pages H-2 to H-3). It is expected that new vibration levels will be below current levels.

In the earliest construction phase of the project, photographic surveys will be made, and strain gauges will be installed at critical locations in the St. Botolph and Back Bay areas. Such documentation will be used in the determination of pre-construction conditions for use in evaluating any claims for damages which may result from construction or operation of the new facility.

c) Measures to reduce noise impacts included on the preferred alternative.

1. The following measures to reduce the level of noise and vibration impact will be employed for the full length of the project:

   a. Track shall be welded into approximately 1500-foot lengths.

   b. Vibration insolators will be installed.

   c. Ties will be set in ballast.

   d. The depressed alignment will be contained by retaining walls, typically 19 to 20 feet high, which will shadow train operations including the Northeast Corridor Rail Project's overheat catenary electrification.

2. In addition, decks and barrier walls will be employed in specific locations for acoustic purposes:

   a. Berkeley to Clarendon Streets - the platform canopies will be designed to reduce the noise from transit and railroad operations as well as the Massachusetts Turnpike upon residences to the south.

b. Dartmouth Street to Massachusetts Avenue Station - a continuous deck will be provided across full height walls in this densely populated area where row houses directly abut the tracks. The deck will be of temporary construction between Dartmouth and Yarmouth Streets and the parcels adjacent to Mass Avenue in anticipation of future air-rights development.

c. Ruggles to Prentiss Streets and Heath to Centre Streets - a deck, which will also be used for recreational purposes, will be provided in these locations adjacent to public housing projects where tall apartment buildings (8 to 10 stories) would otherwise be severely impacted because of their direct line of sight to the rails. At the Heath to Center Street location, it is expected that this deck would be part of the Jackson Square Transit Station construction.

d. Minton Street/Loren Road to Cornwall Street/Oakdale Street and Williams to McBride Streets - an acoustic and recreational deck is included in these locations primarily for purposes of reinforcing major community pedestrian patterns now served only poorly by the underpasses through the embankment. The are located between major residental areas and the public facilities which serve them, including the new Southwest II High School, Our Lady of Lourdes School and the Jamaica Plain Neighborhood House. The decks would provide a benefit in noise reduction to the adjacent residential areas.

e. Station area decks - each station area will be constructed so as to include decking over both the transit and railroad immediately adjacent to the headhouse so as to minimize the noise impact of train operations upon the immediate environment and to encourage pedestrian movement and local commercial development.

f. Barrier walls within the right-of-way - Barrier walls will be provided between the transit and railroad tracks at stations to minimize the impact of fast-moving railroad trains as they pass patrons waiting on the transit platform. A continuous barrier wall will also be constructed between Berkeley Street and Dartmouth Street to shield transit and railroad patrons from the continuous noise of vehicles on the Massachusetts Turnpike.

d) Numerous meetings with abuttors to the proposed Southwest Corridor Project have been held during the execution of the E.I.A. The St. Botolph/South End Task Force was composed virtually entirely of abuttors living adjacent to the constricted rail right-of-way; they helped the Authority develop standards for noise levels as well as the project description for their neighborhood.

Several Neighborhood Committee meetings in the Roxbury and Jamaica Plain areas have dealt with noise impacts. These Committees are composed of abuttors to a very large extent (residents from Whittier Street, Mission Hill and Bromley Heath Housing Developments in Roxbury as well as home owners and renters from Jamaica Plain); and it is clear from the testimony offered at the July 15, 1976, Southwest Corridor Public Hearing that they are well informed about the proposed project.

Testimony and attendance at the June 24, 1975, Public Hearing on the Midland Reconstruction and Acquisition Project and meetings held subsequent to that Hearing indicate that abuttors to that project are also informed.

As a result of the analysis of projected noise impacts along the Midland Division, as well as of several meetings between the Southwest Corridor and community organizations and their representatives, noise alternative measures are proposed as part of that project.

D. DEVELOPMENT POTENTIAL

"The design of the selected alternative should provide the structure on which neighboring communities can develop sound investments in the form of parks, residences and industry." "Development potential in Jamaica Plain is much less if arterial segment #3 is built." "Development must not be limited by the choice of the 'Modified Depressed' alternative."

The development of land cleared for Interstate 95 is an essential element of the Southwest Corridor Plan. Planning during the last 36 months has described uses for each parcel in the Corridor. Those between Ruggles Street and Forest Hills are included for each alternative shown in the E.I.A. The E.I.A. further documents differences in land area, and general feasibility for each site under each alternative, including the "build" and "no build" Segment #3 Arterial (see Section 7.4.3).

Analysis of the "modified depressed" alternative reveals that noise levels slightly higher than those in the "fully depressed" alternative would occur on certain development parcels. These levels, however, generally fall below the 67 db A noise level determined as acceptable for development (this is the equivalent level determined by the Federal Department of Housing and Urban Development for publicly assisted housing funds, see page H-5 of Appendix H of the E.I.A.)

In Jamaica Plain, certain parcels have areas that will experience noise levels above 67 db A. Even in the fully depressed alternatives, these areas fall in a zone approximately 100 feet from the edge of the rail right-of-way. In this lower density neighborhood, any development that has a noise sensitive nature would have to have a setback in order to meet the 67 db A criteria. The City of Boston Zoning Code typically requires rear yard setbacks of 40 feet in such residential areas. The "Post Hearing Profile" reduces noise levels to a point which is quite similar to the fully depressed alignment. This means that the location of habitable space in proposed projects which would include yard setbacks would be affected adversely by noise in a zone between 40 and 100 feet from the rail or arterial facility.

This zone of impact often falls within the proposed "Green belt" that has been provided to serve this buffering function (see plan illustrations in the E.I.A.), so that development of these sites is not affected adversely. In cases where the 67 db A level is exceeded, the impact is associated with both the "fully" depressed alternative as well as in the "Post Hearing Profile."

In Roxbury, higher density residential development is contemplated on several parcels. In most cases, noise levels on these parcels will be established by the presence of the proposed Arterial street or existing Columbus Avenue. This is true of residential uses on parcels #18 and 34. Potential residential use on parcels 24, 26, 28, 30, 32 is viewed only as an alternative to the proposed Roxbury Community College and will be governed by the noise of the Arterial. That proposed on Terrace Street, parcels 25, 27a and 27b is of long term potential based upon the turnover of existing industrial uses; these parcels are higher in land elevation due to existing typography so that noise level differentials between the full depressed and modified depressed alternatives were not significant for these parcels.

Proposed parklands and industrial zones would likewise not be adversely affected by the projected noise levels even at their maximum degree in the projected year 2000. The proposed greenbelt is intended to provide a buffer zone against these noise levels. The development of industrial areas is not affected by noise levels. Institutional development that might be located in the Corridor could be constructed without setbacks, against the transportation facilities, but would have to contain noise attenuation devices such as double glazing and air conditioning for particularly sensitive activities.

Development is also a function of site preparation costs as they affect a given proposal. Site preparation on urban sites consists usually of the excavation of any remaining foundation material of fill left from previous construction, and utility hook ups and sidewalk replacement. In addition, soil conditions owing to substrata and water table levels have a significant impact upon cost in the areas of the Stony Brook Valley.

Filling of sites as contemplated in the "modified depressed" alternative and to a lesser extent in the "Post Hearing Profile" (the preferred alternative) must be accomplished in one of three ways in order to avoid the addition of cost to the proposed development.

The first alternative would be used where single, two, or three story construction is contemplated. In these instances excessively compressable material currently in place if any, would have to be removed and replaced with engineered fill capable of supporting structures of the type contemplated.

A second alternative involves the placement of engineered fill capable only of sustaining floor slabs or paved parking areas. Foundations would then be placed so that they penetrate the fill and the excessively compressive soil (if any), and these would support structures of more than 4 stories.

A third alternative involves no filling of a permanent nature, but rather the placement of permanent retaining walls as the proposed building line adjacent to either the arterial street or the proposed railroad/transit facility. The development site would then be graded with temporary fill that would be excavated upon permanent building construction. Such excavated areas would then become basement areas in the permanent construction.

Roxbury Community College offered specific testimony at the Public Hearing which enumerated certain performance criteria the "Depressed" and "Modified Depressed" alternative. These criteria are as follows:

1. The boundary of the proposed Arterial between Roxbury and Heath Streets must not extend further east than the existing line of Columbus Avenue.

2. Land fill and/or alignment requirements of the proposed Arterial must not reduce the buildable area of the RCC site such as to force extensive community owned or owner occupied property takings for college use. If excess construction costs, such as extended foundations and retaining walls are required to achieve the existing buildable area without takings, such cost must be borne by the Arterial construction.

3. Vehicular access to parking, student drop-off, and college services from the Columbus Avenue (west) must be maintained at all times during the Arterial and rail construction. In addition, the construction process should not hamper the normal flow of vehicular and pedestrian movement to and from the college during operating hours.

Requirements #2 and #3 will be met in the engineering design of the Southwest Corridor Project as it abuts the college site between Roxbury Crossing and Jackson Square. The MBTA and the Massachusetts Department of Public Works will work closely with the college project's designers to assure that these goals are met, and to minimize the impact associated with any intrusion of the alignment to the east of existing Columbus Avenue.

E. TRAFFIC IMPACTS

"What will overall growth in traffic be within the Jamaica Plain area of the Southwest Corridor with and without the

Arterial street (specifically Segment #3, Jackson Square to Forest Hills)." "What will traffic volume be on Greenough Avenue in the 'Build to Jackson Square' (Segments #1 and #2) versus 'Build to Forest Hills' (Segments #1, #2 and #3)." "What is the location on Morton Street of reported traffic volumes (traffic count of 1975 versus projected volumes)?" This also involved the traffic volume on Forest Hills Street. "What is truck traffic in the Southwest Corridor in general and what is the effect on truck traffic caused by the existance of the Arterial street specifically Segment #3." "Will Arterial Segment #3 draw passengers away from the Relocated Orange Line?"

1. Overall Traffic Growth in the Jamaica Plain Area of the Southwest Corridor.

In a very real sense, the answer to the amount of traffic growth on the arterial street system of the Southwest Corridor is a function of one's definition of the geographic extent of the Southwest Corridor. For purposes of all highway traffic analysis, the inner portion (Forest Hills to Jackson Square and onto Massachusetts Avenue) of the Corridor has been considered to be an area approximately 10,000 feet east to west centered on the existing Penn Central Railroad Main Line right-of-way. With this as the definition of the area of interest, the outer boundries in the Jamaica Plain area (Segment #3 of the proposed Arterial Street) become Blue Hill Avenue to the east and the Jamaicaway to the west. Using the above definition as that of the full Southwest Corridor, a comparison of daily traffic usage on radial north-south routings (to/from Downtown Boston) show a very modest increase between the construction of the arterial only to a Jackson Square terminus and its construction to a Forest Hills terminus. A screenline (an imaginary line bisecting the Corridor along which the traffic on all intersected streets is summed to produce a grand total) drawn at the southern and (just north of Forest Hills) shows an increase of approximately 8 percent. A similar screenline just south of Jackson Square shows an increase of slightly less than 5 percent. As one moves further north, above Jackson Square, the difference reduces to less than 3 percent. It is this 3 to 8 percent growth in traffic movement that is anticipated at the corridor level.

Notwithstanding the above corridor level analysis, it is equally true that for a much narrower band, perhaps 500 to 1000 feet on each side of the rail right-of-way, there is a greater increase in traffic as the arterial street performs the function of consolidating traffic

otherwise serviced by several routings into one main routing. The percentage of growth in traffic at the three previously defined screenlines for this very localized bandwidth would be 91 percent north of Forest Hills, reducing to 36 percent and 17 percent as one moves further north (toward Downtown Boston). This greater to lesser growth shows the impact of the proposed Segment #3 of the arterial street in its traffic management function.

2. Traffic Volume on Greenough Avenue

Even though a very large number of the more local residential streets were coded into the computer representation of the total street network of the Jamaica Plain area, not all streets could be included. In the computer representation, there were many cases where a pseudo-link was coded to represent two or more relatively minor streets or several minor streets combined with one major street. This was the case with Greenough Avenue which was combined, along with Seaverns Avenue into a pseudo-link with Green Street. The end result is that no precise traffic loading on Greenough Avenue was directly available. However, the loading on the pseudo-link was 7,500 vehicles in the "Build to Jackson Square" alternative and 9,500 vehicles in the "Build to Forest Hills" alternative. These two figures have been further disaggregated, by hand, with an estimated volume of 1,500 and 2,500 vehicles made for Greenough in the two alternatives. This additional loading on Greenough Avenue in the "Build to Forest Hills" alternative is somewhat typical of what would be expected to happen on streets which access the proposed Segment #3.

3. Location of Reported Traffic Volumes on Morton Street.

A confusion has apparently arisen concerning whether the location of traffic counts taken during 1975 by Frederic R. Harris, Inc. and the Massachusetts Department of Public Works and the reported 1980 and 2000 traffic projections for Morton Street are at the same location; i.e., east of the intersection of Morton Street with Forest Hills Street. The answer to the question is that both the traffic counts and projected volumes are east of that intersection and thus consistant. The respective volumes are somewhat less than 40,000 vehicles for the traffic count (the machine figure of about 41,000 appears several thousand vehicles high when compared to a manual count taken at the same place at the same time for a portion of the counting period as part of the O-D Survey conducted by Frederic R. Harris, Inc.) 38,000 for the 1980 "Build to Jackson Square" alternative, and 36,000 for the 1980 " Build to Forest Hills" alternative.

4. Truck Traffic in the Southwest Corridor.

There is relatively little available in the form of actual classification counts for streets in the inner portion of the Southwest Corridor. Counts have been taken on four of the more major streets, during the past several years; however, with the following results:

Columbus Avenue - 5% trucks (of the total counted volume)
Harrison Avenue - 9% trucks
Tremont Street - 6% trucks
Washington Street - 14% trucks

These percentage figures for trucks are all in the range that would be expected on a major urban arterial street. It seems quite reasonable to believe that something in the range of 9 to 11 percent of the traffic on the proposed Segment #3 of the arterial street would be trucks. There has been a question raised that the proposed arterial street would become a major truck routing from Downtown Boston (the Central Artery) to the areas south of Forest Hills; perhaps routing all the way to Route 128/I-95 and beyond. This does not appear to be reasonable. The disconnection to this routing caused by the termination of the arterial street at Forest Hills with a series of traffic lights along its course is for all practical purposes the same situation that now exists with Washington Street. Since Washington Street does not now exist as a major truck route of regional importance, there is no reason to believe that the proposed Segment #3 of arterial street would suddenly become one.

5. Will Arterial Segment #3 draw passengers away from the Relocated Orange Line?

The question of whether building Segment #3 of the Arterial Street would have an effect on ridership on the Relocated Orange Line was raised on several occasions at the Public Hearing. Several speakers said that a decrease in transit usage would occur if Arterial Segment #3 were constructed. In several instances the statement was also made that it did not make sense to provide a "competing" highway facility to the proposed transit service. The question is whether the inclusion of Segment #3 in the overall street network would improve highway travel conditions, particularly in the peak commuting periods of the day, to the point where any significant shift modal split would occur; specifically a shift away from transit usage to automobile usage.

Any shift in modal split might be the result of decreased travel time for vehicles from the Southwest sector of the region. No significant shift is predicted because the travel

time for persons using the Arterial Street between major origin/destination areas is not changed significantly by the addition of Segment #3. In as much as Arterial Segments #1 and #2 are not in question, the routing from Forest Hills to Jackson Square is the significant area for comparison of travel time in the "Build" and "No Build" Arterial Segment #3 question.

Current routings of traffic on Washington and Centre Streets require that several local shopping areas and traffic signals be negotiated before proceeding north on the proposed Arterial Segment #2 from Jackson Square to Downtown.

Inasmuch as Arterial Segment #3 between Morton Street and Jackson Square is planned with at least 6 traffic signals, it is anticipated that no significant saving in travel time will be gained if Segment #3 is constructed in addition to Segments #1 and #2. Volumes of traffic drawn to Segment #3 will, of course, be drawn to it in part because of initial travel time savings and apparent ease of access; as volume on Segment #3 increases, these savings will diminish or disappear.

Other shifts in volume from Lamartine and Amory Streets will be due to the selective closing and detouring of traffic from these streets to the Arterial and the perceptual difficulty of negotiating Centre and Washington Streets.

F. EMPLOYMENT AND JOBS

"Local contractors and workers from the communities neighboring the project, both minority and non-minority, must share in the benefits associated with the large magnitude of the project." "Fifty percent of the jobs should go to minority workers or Boston residents." "Minority contractors should receive 30% of the work."

The Southwest Corridor project is expected to generate significant numbers of construction and permanent jobs. These projections are tabulated in section 7.2 of the E.I.A. The location of the construction work and permanent facilities within the City of Boston will provide incentives to local economic development in a manner consistent with the Governor of the Commonwealth's policy of investment in urban areas.

MBTA expects to utilize the Commonwealth's affirmative action plans in the execution of its construction contracts in the Southwest Corridor. These will insure that significant numbers of jobs are filled by minority group members. Two existing projects, one already underway and the other in bid document preparation, now utilize two existing affirmative action plans.

The first of these is the Commonwealth's "Supplemental Equal Employment Opportunity Anti-Discrimination and Affirmative Action Program", the so-called Altshuler plan. This plan requires that the construction contractor insure that 30% of all jobs, trade by trade, be filled by minority group members when such jobs are in the "30%" impacted area; the plan has specific monitoring methods and sanctions which may be imposed for non-compliance.

The second such plan is the MBTA's Minority Contractor Participation Plan, a minority contractor set aside, which requires that 30% of the total dollar amount of certain contracts be with minority contractors.

It is the Authority's intention that these plans, or their successor plans, be implemented on the Southwest Corridor project segments within the impacted areas.

Requests for changes in such proportions have been and will be directed to the Secretary of Transportation and the Governor of the Commonwealth of Massachusetts for their policy advice.

Likewise, requests for residency requirements or preferences will be directed to these officials.

G. LOCAL STREET CONFIGURATIONS (WIDTHS, ALIGNMENTS AND CHANNELIZATION

"Street dimensions, alignments and channelization should be consistant with pedestrian access along the Corridor." "Street widenings, right turn channelization and other alignment devices designed to speed up traffic should be eliminated."

The project as revised subsequent to the Public Hearing is intended to maintain the existing scale of the street network in the areas through which it passes. The ground plans included in the final Capital Grant application have been redrawn to eliminate widenings of cross streets, and details will be designed which reinforce the residential nature of these areas and which are conducive to pedestrian safety. A median will be preserved in the Ruggles Street to Jackson Square section of the Arterial Street and left turn lanes will be included at major intersections; however, "free" right turn channelization and narrow directional divider medians which encourage fast-moving traffic and which present a hazard to pedestrians will be avoided. Street layout dimensions and details will be in keeping with urban traffic speeds of 25 and 35 miles per hour.

H. GROUND LEVELS AND TOPOGRAPHY

"Ground levels should not be changed." "Grade changes should not provide dramatic or abrupt barriers which would inhibit neighborhood continuity." "Such grade changes should permit future development right up to the depressed facility."

The corridor presently exhibits considerable topographical diversity. While the Stony Brook originally flowed through the basin area along the Penn Central alignment, there are places where hills have been cut or areas filled in order to establish the topography which is seen today. This filling and cutting was largely the result of creation of the railroad embankment and the provisions made for maintaining cross streets.

The proposed post hearing profile and alignment for the transit project will require additional revisions to the landscape in order to meet the goals of providing the benefits of full depression, neighborhood continuity, and linkages across the tracks. Changes in street grades (which will be held to a maximum of 5% gradient) will in part determine the nature of the slopes of adjacent ground. These will, in general, be gentle and fully

landscaped (see response in Section A and B above). In all cases, streets and sidewalks will be constructed to avoid the flow of any surface water run-off onto adjacent property.

The proposed "post hearing profile" has been carefully drawn so that the adjacent ground levels encourage both the creation of useful open space, improved access to transit stations, and future development. It is intended that this development be permitted and encouraged to occupy vacant land right up to the edge of the railroad/transit depression (except at locations where the "green belt" buffer is planned, or where rear yard zoning setbacks are dictated) and permit its bridging by air-rights construction as required.

I. RAILROAD SERVICE DURING CONSTRUCTION

"Commuter rail disruptions during construction of the proposed Southwest Corridor Project will result in inconvenience, loss of patronage, increased travel time." "Will Back Bay Station be restored to Commuter service?"

The inconvenience to patrons because of the detouring of rail service to the Midland Division and the substitution of bus service is documented in the E.I.A. (see section 6.2.9). These provisions are offered because they are felt to minimize railroad passenger inconvenience and provide adequate suburban service during the construction period, while they also insure the safety of construction workers on the Southwest Corridor project line. An analysis of the alternatives to the proposed method of providing service may be found in the E.I.A. (see section 6.2.9).

Patronage is a function of travel time. As is noted in the E.I.A., travel time for South Station-bound passengers would be the same as it is today. The chart below further enumerates this time and indicates that certain South Station-bound passengers who use the Midland Division can actually benefit through the saving of up to 6.8 minutes of travel time. The chart also shows the derivation of the average 10-minute increase in travel time for passengers who arrive at Back Bay via rail shuttle.

While patronage may suffer from the increased travel time, it would also be offset at least in part by the decrease in travel time to South Station and/or by the added convenience and quality of equipment used in express bus runs. These busses will be new air-conditioned coaches (much newer equipment than the commuter rail equipment) and shorter headways than today's rail system offers.

Travel Time To South Station
Via Upgraded Midland
(Assumes Upgrading to allow
80 mile per hour speeds as
provided in Capital Grant Application)

	Time	Cumulative Time	Distance	Cumulative Distance
Accelerate from Rt 128	2:12	2:12	1.20	1.20
Run at 65 mph	:12	2:24	.21	1.41
Slow to 15 mph	:50	3:14	.56	1.97
Cross to Midland at 15 mph	:48	4:02	.20	2.17
Accelerate to 80 mph	3:12	7:14	2.29	4.46
Run at 80 mph	3:35	10:49	4.78	9.24
Decelerate to 15 mph	1:05	11:54	.86	10.10
Run at 15 mph to So. Sta.	4:24	16:18	1.10	11.20
Total	16:18		11.20	

Time To Back Bay From Rt. 128

Via Main Line: Scheduled At 14 to 23 minutes

Via Upgraded Midland:

Rt. 128 To South Station:	16.2 minutes
Wait At South Station:	4.0 minutes
Shuttle to Back Bay:	5.5 minutes
Total Time Approximately	26 minutes

Additional Time To Arrive At Back Bay
Via Upgraded Midland;
Approximately 6 to 12 minutes

A new Back Bay station is an essential part of the proposed Southwest Corridor Project. This station is to be available to railroad commuter patrons and all trains scheduled for the Shore Line are expected to make this stop. The investment in high platforms will afford better service with full facilities for the handicapped. It will also provide direct connection between AMTRAK, Commuter Rail and the Orange Line giving commuters convenient access to downtown distribution by the Orange Line subway, a benefit which they do not have today. AMTRAK will also utilize the Back Bay Station as part of its high-speed service between Boston, New York and Washington.

J. REPLACEMENT SERVICE FOR THE ORANGE LINE

"The Orange Line Service on Washington Street must be replaced." "Build a subway under Washington Street instead of Relocating the Orange Line."

The operating characteristics and service area of the existing El are documented in the E.I.A. (section 3.2). Proposed replacement services are described also in the E.I.A. (pages 4-27 to -30). as well as are the Commitments of the Commonwealth to a Replacement Service. Speakers at the Public Hearing who represented local South End or Roxbury users of the Orange Line spoke in favor of the Relocation of the Orange Line; they favor surface transit (often light rail) and not a subway or Orange Line solution for Washington Street between downtown Boston and Dudley Station.

An examination of options for replacement service will result in a E.I.A. for that service and perhaps the extension of that as a new service to Dorchester and/or Mattapan. The MBTA Board of Directors had approved the execution of this E.I.A., as well as its consultant contracts. Contract negotiations with the consultant are now nearing completion; a notice to Proceed with this E.I.A. is expected in a few weeks.

Several suburban representatives at the Hearing suggested that a subway under Washington Street be studied. The Southwest Corridor E.I.A. documents that such a study has already been performed. The consequences, construction methods, patronage, costs and benefits of such a subway are included in the E.I.A. The Southwest Corridor Working Committee, which includes City and suburban representatives, at its meeting of 23 February 1976, discussed this documentation and unanimously rejected such a proposal as inconsistant with the needs of local residents and businessmen. Minutes of this meeting are available.

K. STATION DESIGN

"Station design should be consistent with local neighborhood character in the South End and Back Bay Historic Districts." "Station design should permit reuse of adjacent parcels, and contain commercial space for displaced minority businesses at Roxbury Crossing."

The character of the South End and Back Bay Historic Districts will be respected in the design of both the Back Bay and Mass. Avenue Stations (neither station is actually within either historic district, but is adjacent to one or both districts). The MBTA will invite the Massachusetts Historical Commission to nominate representatives from both Historic districts to review all proposals for services received from consultants for engineering and architectural design, so that they might offer advice to the MBTA on the choice of consultants. Station design will be reviewed with local residents and the Historical Commission nominees prior to completion of construction documents.

A principal tenet of the Southwest Corridor project is the encouragement of joint development at stations. Stations will be designed to include commercial space. The design of this space is also intended to encourage and reinforce existing commercial businesses by providing continuity of street access, commercial frontage, etc.

The Roxbury Crossing Station will be constructed with adequate commercial space to house the three existing minority businesses on Tremont Street that will be displaced by the project and these businessmen will be offered the right of first refusal for the rental of this space. Such rentals will be at rents consistant with their ability to pay as based upon current rental and investment in equipment levels with reasonable factors added for inflation.

L. TAKINGS

"The project should proceed with minimal property takings." "Takings in the South End should be held to four feet (between Dartmouth Street and Wellington Street."

A listing of the maximum number of takings anticipated is included in the Capital Grant Application. This number of takings

has been minimized by the choice of alignments which closely adhere to the former Interstate 95 right-of-way (which was largely cleared of structures), except in the South End where the expressway was not to have been built. In the South End the alignment follows the existing Penn Central Shore Line right-of-way, though the alignment exceeds the current right-of-way width. (see Exhibit K)

In the execution of the E.I.A. several detailed alignments were studied. Through the South End an alignment was chosen that requires the taking of residential and commercial property and these are also documented in the Section 106 statement on Historic District impacts in Appendix A of the E.I.A. Other alignments studied for the South End take as many as 35 structures, or as few as 4. The latter alternative would involve a full Orange Line tunnel under the rail alighment at considerable cost and lesser overall noise attenuation benefit than the chosen preferred alternative (see section 4.4.2 of the E.I.A.). This tunnel would leave the existing railroad right-of-way without significant noise attenuation measures; i.e., it would not be covered. The alignment and noise attenuation measures chosen for the South End/St. Botolph area is the result of the consensus of the South End/St. Botolph Task Force. This Task Force was composed of citizen volunteers, agency personnel, and members of the Southwest Coordinator's staff. It's report is part of the Public Hearing Testimony.

At the Hearing, several speakers made reference to a four-foot taking line in the area. This line would be to the east of the existing railroad right-of-way between Yarmouth Street and Massachusetts Avenue and located in the bed of existing Claremont and Carleton Streets which parallel the right-of-way. The deed for the new Titus Sparrow Park excludes this four-foot area, since it was anticipated prior to conveyance to the City Park Department. MBTA expects that this line will not be exceeded in any new permanent construction in that area except at the intersection of Massachusetts Avenue where two large brick structures abut the right-of-way. Construction easements beyond the four-foot line will be required. During engineering phases, the brick structures mentioned above will be examined to determine their suitability for underpinning. If it cannot be underpinned it would be demolished.

Refinement to the profile between Ruggles Street in Roxbury and Morton Street in Jamaica Plain may permit a reduction in takings or eliminate the demolition of certain structures. This will be explored and detailed in the engineering phases of the project.

As a result of changes made in the project as the result of comments at the Public Hearing and the work of the Task Force on Vertical Profile, three additional properties are affected by the proposed project as described by the Post Hearing Profile. These properties are located on New Heath Street where the street bridge

shown in the fully depressed alternative but revised to a pedestrian overpass in the modified alternative was restored in the "Post Hearing Profile" so that it will carry vehicular traffic. This bridge crossing requires the raising of New Heath Street from the existing "sag" which it currently follows in profile to a more nearly flat profile and the raising of the grade of the end of Terrace Street to meet the proposed New Heath Street grade. The raising of this street affects access to three commercial properties as follows:

38 New Heath Street (J. Fleishman)

41 New Heath Street (former Croft Brewery)

166 Terrace Street (Argosy Printing)

All three of these are commercial properties. Raising the street and sidewalk would require closing basement windows of the buildings at 41 New Heath and 166 Terrace, would require revising the entries to 166 Terrace and would require revising the access to the property at 38 New Heath Street.

M. AIR POLLUTION

"A new arterial in Jamaica Plain will add to local air pollution."

The effects of an arterial in Jamaica Plain upon air pollution are documented in the E.I.A. (section 5.3).

N. CONTINUATION OF PARTICIPATORY PROCESS IN TRANSPORTATION ENGINEERING, LAND USE AND DURING CONSTRUCTION,

"The citizen participation process begun in planning should be continued and strengthened during the implementation phases of the Southwest Corridor Project."

The Secretary of Transportation of the Commonwealth, the MBTA, Mass. DPW, and the Southwest Corridor Coordinator intend that the process of citizen participation as codified in the Southwest Corridor Memorandum of Understanding (see Appendix G of the E.I.A.) be extended through the design and implementation phases of the project. They will entertain amendments to the document as processed by the Southwest Corridor Working Committee and endorsed by the responsible public agencies. Public meetings,

task forces, and Neighborhood Committees will continue to meet as may be necessary to encourage a full discussion of issues in the Corridor.

O. SECURITY

"The new line may be unsafe because of crime."

The design of the new facility will be made with consideration of problems of security. Stations will be designed to expose platform and entry levels to the view of the station attendant and patrons of the system. Column free designs which eliminate unseen areas will be employed where possible. Line-of-sight exposure of all areas will be considered, with clear distinctions made between public access ways and private use zones The new facility will eliminate the long vertical climbs and hidden mezzanines and passages prevalent in the existing Elevated facility since that facility will be demolished. These are a principal source of security problems in the existing Orange Line.

P. SAFETY

"Personal safety, safety of children and protection of the right-of-way must be considered." "The safety hazard to residents from traffic on the potential Arterial Street in Jamaica Plain is too high and therefore the Street should not be constructed."

The Capital Grant Application includes a complete fencing of the rail/transit right-of-way (in those areas not covered by decking) in order to prevent accidental or unintentional access onto the right-of-way. This fencing would also help, to the extent possible, to prevent the malicious destruction of railroad and transit property. The application notes that particular attention will be paid to the design of this fencing in historic districts and station areas. Special attention will also be given to fencing in locations adjacent to schools and playgrounds. The project will provide a major improvement over the existing largely unfenced railroad embankment.

Personal safety will be addressed through pedestrian-oriented sidewalk and intersection design, through careful use of lighting of the streets and sidewalks, the station, and the

access ways. The station attendant's booth will be located so as to provide maximum visual surveillance of both the platform and lobby, including any pedestrian overpasses or underpasses.

The Arterial Street traffic poses safety questions similar to those of Functional Linkages, as described in items A and B of these Responses. The street would create an increase in traffic in specific locations in return for a decrease in traffic in other locations (these are documented in the E.I.A.). The relative amount of safety to pedestrians in one scheme versus the other is a matter of subjective opinion.

Q. HANDICAPPED ACCESS

"All stations should have 'barrier-free access' for the handicapped."

The Capital Grant Application states that the entire Relocated Orange Line will have provisions for the handicapped (see Project Description, Exhibit M). In addition, the commuter rail facilities provided will have such facilities as specified as part of the Southwest Corridor project. All street revisions and Arterial Street construction will include wheelchair ramps.

Existing street gradients will be reduced in many locations (refer to response A and B) to permit easier access, particularly in winter conditions. Access from the Bromley-Heath public housing project along Centre Street to the proposed Jackson Square transit station will be much improved by new street grades, new access ways and lighting. Access to certain hoursing structures within the project for the handicapped is possible if such structures were converted to handicapped use (none are in such condition at present).

R. TIMING; EFFECT OF DELAY ON PROJECT CONSTRUCTION AND COMMUNITY

"The project must be constructed as quickly as possible to prevent further blighting deterioration upon Boston neighborhoods and inflationary expense in construction of the project."

The schedule for project construction continued in the Capital Grant Application (page A-44, A-45 and Figure A-5) has been drawn in order to minimize project construction time while still providing environmental benefit. Meeting the schedule requires the detour of railroad operations to the Midland Division during the Southwest Corridor project construction period in order to avoid delays in construction owing to the presence of rail traffic on the Shore Line. These delays could extend the construction period by 15 months (see Figure IV-13 of the E.I.A.). The retention of the existing embankment could shorten construction time by one year, but would involve environmental impacts found unacceptable to the City of Boston and the residents of the Corridor neighborhoods (see testimony offered at the Public Hearing).

Any delay in construction could undoubtedly cause further deterioration in Corridor neighborhoods due to the presence of unutilized and blighted lands cleared for Interstate 95. Property values could continue to decline because of the inability to sell structures located near the Corridor.

The prolonging of construction would add to the cost of construction at the rate of approximately 10 percent per year of delay. This is estimated to amount to approximately $40 million per year, for each year beyond 1982 in which the project was delayed to completion.

S. EMERGENCY VEHICLE ACCESS

"Emergency vehicles must have better access." "The arterial will better emergency access to Jamaica Plain."

The proposed modifications to the existing street patterns for both the "build arterial street" and "no-build arterial street" option have been discussed and approved in a preliminary stage by representatives of the Public Improvements Commission and other agencies of the City of Boston. Included in this review, for purposes of considering public safety and emergency vehicle access, has been the City's Fire Department. The street patterns have also been discussed with residents at numerous community meetings. In addition to providing for all primary north-south emergency vehicle patterns, two new east-west street crossings have been added: at Minton Street/Lorene Road, which will increase flexibility for access to a large section of Jamaica Plain, and at Cedar Street, which will allow direct access from the New Arterial to an industrial area of Roxbury.

The work of the Task Force on Vertical Profile since the Public Hearing, two street bridges have been re-inserted in the proposed project, New Heath Street and Prentiss Street. These will also serve to increase access flexibility in case of an emergency.

The existing low clearance underpasses under the existing embankment present hazards and restrict movement of the largest of current fire-fighting equipment of the City. The depressed profile will eliminate these constrictions to vertical clearance.

The Arterial Segment #3 would provide continuous north-south access to local streets in Jamaica Plain for emergency vehicles. This access is not presently as good as it would be if the Arterial were built.

T. FLOODING AND DRAINAGE

"Care must be taken to prevent flooding in the rail depression and in the surrounding area." "The Arterial in Jamaica Plain would cause flooding in Jamaica Plain." "The Stony Brook combined drainage system should separate storm and sanitary outflow."

The precautions against flooding are elaborated in the E.I.A. (see section 6.4.1) and in the Capital Grant Application (Exhibit O). No flooding would be caused by the project due to the use of drainage methods as described in the E.I.A. The Arterial, if constructed, would be built with a surface drainage system capable of carrying all runoff away from the transit facilty and adjacent residences. The increase in surface area would be less than that lost though the demolition of structures for I-95. These structures will be replaced with a proposed "Greenbelt" which will also serve to absorb rainfall and minimize runoff. The "Greenbelt" will be designed with its own drainage system containing swales, drainage channels, catch basins, etc., and would be tied to the Stony Brook storm water drainage system.

In the course of constructing the Southwest Corridor project it is necessary to create siphons and to relocate portions of the present Stony Brook Culvert. The current Stony Brook drainage system is primarily a storm system, but it inadvertantly includes sanitary waste. The final elevation of the designed depression will not materially change the work required in altering the present culvert. Likewise, the entrance of sanitary sewerage into Stony Brook will not influence the need for relocations to accommodate the rail/transit system.

If Stony Brook Culvert could be completely severed from all sanitary sewer services, it obviously would run cleaner and have better hydraulic capacity. Sanitary sewerage finds its way into Stony Brook Culvert both up and down stream of the limits of the Southwest Corridor project within the large surrounding catchment area.

In looking forward to a long range plan for the separation of storm/sanitary service by the Commonwealth's Metropolitan District Commission and the City of Boston, it might well be that the Southwest Corridor project could provide for a future up-grading. Given the fact that existing sanitary sewers between Jackson Square and Ruggles Street will be reconstructed by the Southwest Corridor project, the opportunity exists to install, in this limited area at least, new sanitary services.

This initial section of new sewer installed as a consequence of this Southwest Corridor project would be compatible with future systems which eliminate all sanitary inflows into Stony Brook Culvert.

Engineering design in the Southwest Corridor will permit the future separation of sanitary waste from the storm system, with provisions made for the current installation of separate facilities as may be useful.

The water or "flooding" referred to by one resident at the public hearing in the area abutting the embankment near South Street is a result of a leak in the water supply system and not a display of high ground water in the area.

U. TEMPORARY STREET CROSSINGS

"Traffic circulation on Massachusetts Avenue must not be interrupted during the construction of the new bridge across the rail/transit facility."
"Pedestrian crossings must be maintained across major community circulation paths during construction."

A detailed description of construction phasing describes the measures proposed to maintain street traffic at each crossing throughout the corridor (see section 5.5.2 of the E.I.A.).

At Massachusetts Avenue the method of handling traffic described in the E.I.A. (during the construction of the proposed new Massachusetts Avenue bridge over the rail/transit corridor)

was predicated upon the avoidance of additional property takings. With that restriction, a detour bridge and approaches could not be constructed adjacent to the existing structure. The suggestion by the neighborhood and the City of Boston to build a temporary detour requires the demolition of an additional structure on Massachusetts Avenue. This demolition is contemplated as perhaps being required to provide the continuous deck for noise control. If the structure cannot maintain the underpinning required to provide the noise control measures as specified in the Capital Grant's Project Description, it will be demolished. A determination of its structural capability will be made in the engineering design phase.

The impact upon traffic flows under the method outlined in the E.I.A. would be to force traffic to use other existing arterial streets which would be more circuitous and in many cases restricted by parked cars. The action of closing Massachusetts Avenue would encourage many motorists to seek other routes by which to reach their destination. The cost attributed to this scheme is included in the cost estimate presented in the E.I.A.

The construction of a 4-lane detour bridge adjacent to the existing structure is considered feasible and would allow Massachusetts Avenue to remain open to traffic.

The temporary 4-lane detour bridge, with a minimum 8-foot sidewalk on the north side, would be totally independent of and sited to the north of the present Massachusetts Avenue bridge. The detour bridge would be of simple construction spanning a width necessary for only one active railroad track below. The particular type of structure must lend itself to rapid construction and easy dismantling. The detour bridge approaches to Massachusetts Avenue will require a reduced speed of 10 miles per hour. This arrangement for a temporary bridge and approaches will permit the complete and uninterrupted demolition and reconstruction of the Massachusetts Avenue overpass bridge while at the same time provide for existing traffic patterns to be maintained.

The cost of constructing and dismantling the detour bridge would be approximately $125,000.

The ability to maintain present traffic patterns and not force people into alternate paths, which may already be overloaded, is considered to be preferable from an environmental view than the original "no detour" option, provided that the demolition contemplated would occur for reasons of noise control construction.

Pedestrian circulation could be maintained at locations where street bridges were out of service during new bridge construction by the use of temporary bridge structures across the right-of-way. A final determination of the appropriate location of such pedestrian crossings will be made during the design phase, though the locations currently in use would be reduced in number.

V. BUS LOOPS AND CONFIGURATIONS

"Bus loops should be designed for better bus access."
"Stations should permit better pedestrian access."

Major transfer points between bus and rapid transit are planned at Forest Hills, Jackson Square and Ruggles Street. Each of these stations will require space for boarding, drop-off and some provisions for layover. None is expected to be a bus storage or maintenance facility. These are also the most important stations from the standpoint of joint development and the creation of commercial centers to replace those destroyed by the demolition for the highway right-of-way.

The bus areas illustrated in the Environmental Impact Analysis and the Capital Grant Application indicate the approximate scope of facilities required. It is anticipated that the design phase will further develop the specifications for bus facility requirements as well as the exact scope of joint and private development in the station area. Some modification of the layouts illustrated will be made at that time. Of particular importance will be the relationships of bus movements to pedestrian circulation both within and outside the station, and of the relationship of bus movements to vehicular traffic.

W. NEEDHAM BRANCH

"We cannot support the Southwest Corridor Project unless a decision on improvements to the Needham Branch is made."
"The Forest Hills Station should not become the terminus of the Orange Line - service should be extended to Roslindale and West Roxbury."

Several comments and questions have been raised about the E.I.A./Capital Grant process for the South Cove-Forest Hills project and its relationship to the decision making process for the West Roxbury/Needham project. These concerns can be broken down into four areas: 1) consistency with environmental requirements; 2) consistency with Federal capital programming requirements; 3) consistency with State capital programming requirements; and 4) consistency with design of the Forest Hills Station.

These four areas are discussed below. However, it is worthwhile to briefly review the analysis documented in the Environmental Impact Analysis towards the timing of the Needham Branch project decision. First of all, in the section on Analysis of Alternatives (section 4.3.2), the E.I.A. examined the proposed configuration - two rapid transit tracks and three railroad tracks - for its compatibility with four separate planning scenarios.

The proposed configuration and its alternatives were examined both with the assumption that rapid transit would be extended through Roslindale and West Roxbury, and with the assumption that it would not be extended. Further, the proposed project was examined with the assumption that the commuter rail ridership would expand only modestly, and with the assumption it would expand tremendously.

This exercise, as included in the report, concluded that three rail tracks were desirable in the most modest assumption about the future of commuter rail (i.e., low ridership, rapid transit service to Needham), and fully adequate in the highest assumption about the future of commuter rail service (i.e., major increases on all lines, with CRR service to Needham). The reader is referred to the E.I.A. (pages 4-31 to -36) for this analysis.

Based on this compatibility with either Needham decision, EOTC has stated its intention to undertake at least a reconstruction of a two track rail roadbed on the Needham Branch during the period of rail service disruption. The decision as to the timing and scale of further upgrading of service on that Branch will be made at the conclusion of the Roslindale/West Roxbury/Needham Transit Improvements Study, and as part of the revised capital plan for the Authority, called the "Program for Mass Transportation."

The implications of making these two decisions in a staged rather than simultaneous manner are discussed below.

1. Consistency with Environmental Requirements

Under present interpretation of environmental requirements, every proposed transit project must be evaluated for its impacts in and of itself. That is to say, in the justification of a given transit project, you cannot assume the existence of a second project which has not as yet cleared the environmental impact statement process. By way of an example to clarify this concept, the MBTA is proposing a major transit facility in the Alewife Brook area of Cambridge. In order to minimize the negative impacts of auto vehicle congestion gaining access to the Alewife facility, the Department of Public Works plans to build a roadway ramp system in the area. However, the transit E.I.A. could not assume that the second project - the highway ramp project - would be in existence at the time of opening of the transit station. The transit line had to be documented in terms of its impacts in and of itself, without assuming the existence of a second project which might mitigate the environmental disruption of the proposed project.

Thus, even if the Roslindale/West Roxbury/Needham study were completed today, the South Cove-Forest Hills E.I.A. would have to take the same form as presented in the July

hearing. It would not be able to assume any particular Needham facility, but rather show its compatibility with either of the main options for service in the Roslindale/ West Roxbury/Needham corridor.

In as much as the proposed Southwest Corridor Project is a self-sustaining project which protects all options for the Needham Branch as well, no environmental inconsistancy exists.

2. Consistency with Federal Capital Programming Requirements

In a major policy development in the fall of 1975, the Urban Mass Transportation Administration announced the adoption of a policy towards investment in major "fixed-guideway" projects (such as rapid transit or commuter rail facilities). In that policy, UMTA stated that while long term planning should examine total systems, projects being submitted for capital funding must be broken down into separately implementable sub-projects, called useable segments. These projects must, according to this policy, be justifiable in and of themselves, without the assumption of further major capital investment. In the replacement of the Washington Street elevated to Forest Hills, the "useable segment" in the case of this project is the facility to Forest Hills. This project must be justified on its own merits before the Roslindale/ West Roxbury/Needham project can be considered, according to Federal funding policy.

It should be noted that the UMTA policy of incremental justification of staged implementation of major projects is similar in form to the environmental requirements noted above. However, they are in fact two separate issues: one related to the National Environmental Policy Act; and the other related to capital programming requirements based on the principle of marginal economic analysis. Both criteria are satisfied in the Southwest Corridor Project - South Cove to Forest Hills.

3. Consistency with State Capital Programming Requirements

It is a hard fact that the Commonwealth cannot implement all desirable projects at once, and in fact must stage the improvements over time. (This is the process of Capital Programming.) The decision concerning the choice of mode for the Roslindale/West Roxbury/Needham corridor will, of necessity, be influenced by the cost of other major capital projects, including the South Cove-Forest Hills project. The Commonwealth, at this moment, is entering the last few weeks of a detailed capital budgeting process which will influence the

timing of major transit improvements in the Roslindale/West Roxbury/Needham corridor. The final project costs of the South Cove-Forest Hills project (as well as other major transit projects) are a critical input to that capital budgeting process. For State programming purposes, the decision on definition and timing of rail transportation improvements to Roslindale, West Roxbury and Needham has been placed in the content of the "Revised Program for Mass Transportation", the required long term capital budget for Mass Transportation. A draft of the document will be circulated in September of this year.

4. Consistency With Design of the Forest Hills Station

The proposed design for the joint facility is consistent with both major options for Roslindale/West Roxbury/Needham rail service. The design of the Forest Hills station area has been programmed with awareness of the need for flexibility in the evolution of service improvement. Specifically, the project has rejected design alternatives which would rule out direct connection to the Needham line R-O-W for either mode. Rather, the proposed design solution calls for the rapid transit "tail tracks" to veer onto the Needham Branch alignment, with sufficient horizontal clearance for two commuter rail tracks to parallel them. These four tracks would be utilized in either case because of the need to have a small amount of rapid transit car storage in this location for "short turn-back" service from Forest Hills or for full end-of-line storage.

The only design aspect which is then impacted by the necessity of staging the two project decisions is the scale of the parking facility at Forest Hills. Demand studies show that demand for parking at Forest Hills would be decreased by a rapid transit extension through Roslindale and West Roxbury, but not eliminated. A significant portion of the parkers using both the current parking lots and the proposed facility at Forest Hills approach along Hyde Park Avenue, or from the circumfertial parkways. Neither of these segments of the market would be significantly diminished by an extension along the Needham branch which runs west from Forest Hills and not south to Hyde Park. A facility of 500 cars is proposed for the roof of the Forest Hills station. This parking would be required primarily as replacement for the on-grade parking which will be lost in the Forest Hills area due to the proposed Southwest Corridor project. A detailed analysis of these requirements is included in Appendix J of the E.I.A.

It is correct, however, that the final determination of the scale of the parking facility should be made after the decision concerning the timing of the rail improvements on

the Needham Branch. This can be accomplished prior to design of the station, or the station can be designed to take the loading of the two additional parking levels necessary for the demand indicated in the E.I.A.

X. FOREST HILL TROLLEY YARDS

"The trolley Storage Yard site at Forest Hills should not be located as shown, but moved to an alternate location." "The embankment must be designed and constructed south of Forest Hills so that the regrading will avoid adverse visual and hydrologic effects.

In response to City of Boston Conservation Commission testimony regarding the possible impact of the proposed trolley storage yards at Forest Hills on adjacent undeveloped land, the Authority has removed this item from the current Capital Grant Application. Additional consideration will be given by Authority Operations, Planning and Construction personnel to several options for both maintenance and storage of Green Line trolleys, with concern for conversion to an LRV fleet. This location, as well as others, will be considered.

The current application has been revised to include a rail connection from the proposed Green Line station and layover area within the Forest Hills station complex to the existing trolley maintenance and storage facility in the Arborway yard. This revision will permit improved service on the Arborway Green Line while allowing a future modernization of the storage and maintenance facility (should maintenance facilities not be relocated to a new location).

Regrading of the existing embankment south of Forest Hills will be carefully engineered to preserve the current buffering effect of this earth mound in separating traffic on Washington Street to the east from the undeveloped land immediately to the west. Volume of runoff from this facility will be no greater than that produced today, so that no effect upon the hydrology of the undeveloped land is anticipated.

Y. HISTORIC PROPERTIES

"Special design consideration to areas left after demolition of structures in the South End Historic District and areas of new construction near the District should be made." "Provisions for the reuse of the iron and glass canopy at Back Bay station and the copper clad stations on the El should be made." "Buildings at Mass. Ave should be saved."

The character of the Historic Districts will be respected in all new construction. Brick, iron railings and other indigenous materials will be used (see Capital Grant Project description, Exhibit A). Neighborhood residents and Massachusetts Historical Commission nominees will be invited to review all design proposals. Specifically, the Back Bay Architectural Commission will be consulted in the design of the proposed new Back Bay station (though this station is not within the Historic District, it is located in close proximity to it); the State Historic Preservation Officer will be consulted concerning the refacing of end walls adjacent to structures that would be demolished, as well as in the design of landscaped areas and fencing to be placed in the South End. The Massachusetts Historical Commission will be invited to nominate representatives from both Historic Districts to review all proposals for services from consultants for engineering and architectural design so that they might offer MBTA advice on the choice of consultants.

Appropriate documentation supporting a determination of effect will be forwarded to the Advisory Council on Historic Preservation, if applicable, in accordance with 36 CFR 800 "Procedures for the Protection of Historic and Cultural Properties".

While the Back Bay Station is in itself not of particular historic architectural significance, and is not located within a Historic District, the iron and glass canopy along Buckingham Street is of high architectural quality. The MBTA will make every effort to incorporate this element into the new station design. A facade from one of the Elevated stations (preferably from the Dover Street Station) will be examined for inclusion in one of the new Orange Line stations serving the South End. If the copper cladding material can be removed without significant damage, every effort will be made to incorporate it in the new facility.

The two vacant structures in the South End at Massachusetts Avenue present special engineering problems. Their acquisition is required because of the provision of noise enclosures at these points. The E.I.A. describes these structural problems and proposes that their current structural condition dictate either retention or removal. Examinations during the engineering phase of work will determine the feasibility of underpinning and retention.

It should be noted that the Olmsted Park System described in section A.6.5.1 of the E.I.A. contains a stone railroad viaduct at Forest Hills (under the Arborway highway bridge) that was designed as part of the original park system and constructed in 1896. This removal of the viaduct is essential to the depression of tracks through the area and will permit linking of Franklin Park with the Arnold Arboretum and the proposed Southwest Corridor Greenbelt.

Z. COST/LEVEL OF BENEFITS

"What benefits (if any) are provided by the costlier alternatives?"

A comparison of benefits between the various railroad/transit alternatives can be made on the basis of the following criteria:

1. Noise levels at critical locations
2. Street gradient at typical intersections
3. Extent of fill above existing grades at selected locations
4. Number of takings, and
5. Potential development

The incremental cost between alternatives can thus be compared to changes in these five parameters in order to evaluate the cost of additional benefits provided by each alternative.

It should be emphasized that the project has many variables and is extremely complex and that any such simplification of cost level of benefits must gloss over many important considerations.

a) Absolute Values

The table in the following page shows the construction cost, noise level, street gradient, height of fill, number of takings, and potential for development;for the Embanked, Modified, Post Hearing,and Depressed alternatives, with no arterial street.

The "no build arterial" alternatives were selected for comparison in order to isolate the benefits of the railroad/transit facility since it is the major proposed investment.

The construction costs are given in 1976 dollars.

Noise levels are given in dbA for receptors at the following locations:

Location	#1	S.W. II High School	50' E from Tracks
	#2	Boylston Congregational Church	150' E from Tracks
	#3	Amory Street Apartments	150' E from Tracks
	#4	Mission Hill Housing	50' W from Tracks
	#5	Bromley Heath Community Center	50' W from Tracks
	#6	Roxbury Community College Site	100' E from Tracks

Gradients are given for streets over the rail right-of-way at the following locations:

Location	#1	Ruggles Street
	#2	Tremont Street
	#3	New Heath Street
	#4	Centre Street
	#5	Atherton/Mozart Street
	#6	Green Street
	#7	Williams Street
	#8	McBride Street

For the Embankment Alternative, the existing gradients are shown in the table.

The "height of fill" is defined as the final ground elevation or"blade wall"immediately adjacent to the rail/transit facility, compared to that of an observer at the following locations:

Location	#1	End of Child Street	Elevation 33'
	#2	At Johnson Playground	Elevation 37'
	#3	End of Chestnut Terrace	Elevation 35'
	#4	At Bromley Heath Comm.Center	Elevation 39'
	#5	At Station Street	Elevation 21'
	#6	At Mission Hill (300' north of Prentiss St.)	Elevation 19'

For the embankment alternative the "height of fill" assumes 6-foot noise walls (the catenary would rise an additional 12 feet above the noise walls). For the Modified alternative, the height is estimated to be that necessary to fully obscure catenary (minimum 19 feet above tracks).

The development cirteria is defined in terms of "potential for development".

A measure of the short- and long-range development benefit associated with the rail/transit facility options is gained by a comparison of the ability to easily use potential air-rights space available over the tracks. For comparison purposes, this has been defined as a deck over the tracks whose elevation is no higher than six feet above the elevation of an adjacent street or existing ground.

The area counted does not include any potential air rights deck accessible only from the possible arterial street Segment #3 nor any station areas or cross streets. It does include deck area presently included in the project as recreational and open space decks for noise reduction and community connecting. This is, in fact, viewed as one of the most important of air-rights development uses. There is no potential for air-rights development assigned by this criteria to space over the modified embankment alternative. Any potential "under-rights" are considered too expensive and are not available for implementation at a latter date.

b) Comparisons

An evaluation of cost/level of benefit between alternatives can be made by:

1. Comparing the Modified, Post Hearing and Depressed alternatives to the embankment alternative;

2. Comparing alternatives to each other.

The following tables compare the incremental cost and the reductions in noise levels and number of takings between each alternative and the embankment alternative.

COMPARISON TO EMBANKED ALTERNATIVE

Incremental Cost (1976 $ million)	Modified	Post Hearing	Depressed
$	75.3	119.2	195.9
%	45	73	118
Reduction in Noise Levels (Average for 6 location)			
db A	more than 5	more than 8	more than 8
Difference in # of Takings			
Residential	+9	+8	+1
Commercial	+14	+7	+1
Total	+23	+15	+2

COMPARISON OF ALTERNATIVES

	Modified/ Embanked	Post Hearing/ Modified	Depressed/ Post Hearing
Incremental Cost (1976 $ Million)			
$	75.3	43.9	76.7
%	45	18	27
Reduction in Noise Levels (Average of 6 locations)			
db A	more than 5	more than 3	none
Reduction in # of Takings			
#	+23	-8	-13
%			
Additional Potential for Development			
acres	n.a.	9.4	4.8
%			

For the locations considered, the modified alternative provides for better than one-half the average sound pressure level of the embankment alternative at an added incremental cost of approximately one-half of the construction cost of the embankment alternative (a change in 3 db represents a halving of the sound pressure level). For an additional incremental costruction cost of less than 25 % of the embankment alternative cost. The Post Hearing alternative results in approximately an eight fold reduction in sound pressure levels.

CRITERIA		ALTERNATIVE							
		Embanked		Modified		Post-Hearing		Depressed	
CONSTRUCTION COST (1976 $ Million)		167.0		242.3		286.2		362.9	
NOISE LEVEL - dbA	Location #1	>72		<72		<72		<72	
	#2	<67		<62		<62		<62	
	#3	<72		<67		< 62		< 62	
	#4	72		62		62		62	
	#5	<72		<62		<62		<62	
	#6	<72		<72		62		62	
	Average	<71		< 66		< 63		< 63	
STREET GRADIENT - %		East	West	East	West	East	West	East	West
	Location #1	level	level	+2	+4	+1	+2.5	+1	+3
	#2	level	-3 to -5	+4	+4	level	level	level	-2
	#3	-9	-3	not possible		-5	+3	-8	+1
	#4	level	-5	+5	+5	+2	+2	+1	level
	#5	-6	-7	+2	+3	level	+2	+5	+5
	#6	level	-3	+5	+3	+3	level	+4	-3
	#7	level	-5	+5	+5	+5	+2	+3	+4
	#8	level	-5	+5	+5	+5	+2.5	+1	+1
HEIGHT OF FILL - feet	Location #1	27		11		2 (6' to deck)		0	
	#2	21		4		0		0	
	#3	19		4		4		0	
	#4	14 (22' to top of canopy)		4 (to deck)		0 (to deck)		0 (to deck)	
	#5	25		7		3		0	
	#6	21		10 (to deck)		3 (to deck)		3 (to deck)	
TAKINGS	Residential	10		19		18		11	
	Commercial	6		20		13		7	
	Total	16		39		31		18	
DEVELOPMENT (acres)		0		13.1		22.5		27.3	

An additional incremental cost of almost 50% of the embankment alternative cost does not provide any significant reduction in sound pressure level. Clearly the Post Hearing alternative provides the next "cost effective" reduction in noise levels.

With respect to the number of takings, the embankment alternative results in the least number of takings; however, the other negative environmental aspects of that alternative negates this benefit.

The depressed alternative offers the next least number of takings. However, its cost is more than twice that of the embankment alternative. The Post Hearing alternative results in a compromise that provides for fewer takings than does the modified alternative.

Regarding the steepness of final grades as compared to existing grades at selected locations, the Post-Hearing alternative provides, on the average, the best conditions, i.e., conditions of least steepness.

Regarding the extent of fill above existing grades, the Post-Hearing alternative results in significantly reduced levels of fill from the Modified alternative. These are approximately the same levels as those in the Depressed alternative with a resultant 18% increase in cost above the Modified alternative.

A comparison between depressed alternatives reveals that 66% of the additional air-rights land made available by the Full Depression Alternative can be achieved in the Post-Hearing option at a 18% increase in cost. None of this potential exists in the Modified Embankment Alternative.

c) Summary

It can be stated that the Post-Hearing alternative, has the following characteristics,

1. it provides the most cost effective reduction in noise levels (i.e., virtually identical to the fully depressed alternative)

2. it results in the most gradual street gradients at intersections

3. it provides minimum heights of fill above existing grades

4. it provides for the most cost effective addition of air-rights land for potential development in the future.

These benefits are true at a cost lower than that of the Depressed Alternative, and with a total number of takings which are reduced significantly from the maximum of the alternatives considered.

It should also be reiterated that the Post-Hearing profile represents a preferred alternative which is the culmination of a long process of detailed consideration. As such, it is the product of consensus selection by public and private individuals concerned with the project.

AA. MAINTENANCE

"The Arterial Street if constructed in Jamaica Plain will add to the expense of maintenance." "The rail/transit facility will be expensive to maintain."

The Arterial Street, if constructed in Jamaica Plain, would probably be maintained as an ordinary city street by the City of Boston. Day-to-day maintenance would be borne by City real estate tax payment. Some offset of this cost would be expected due to the reduction in traffic on other local streets such as Centre, Washington, Lamartine and Amory. The costs of removal of the Elevated and sidewalk repair on Washington Street would be borne by MBTA as part of the Southwest Corridor Project. The cost of construction of the Arterial would be borne by the Massachusetts Department of Public Works with appropriate Federal reimbursement.

The railroad/transit facility would be maintained by MBTA and Amtrak. The expense of transit maintenance would be less than that for the existing elevated by approximately $1.3 million per year (see E.I.A. page 4-18).

BB. CONSTRUCTION IMPACTS

"What are the impacts of Southwest Corridor Project construction".

The E.I.A. contains a thorough discussion of such impacts (see Section 6.2).

CC. PROCEDURES

"Businessmen in the Corridor, whose properties may be taken, may be unaware of the Project."

MBTA has gone to considerable length to advise merchants and businessmen of the Project. All takings by address have been discussed at Neighborhood Committee Meetings. Significant newspaper, television and radio coverage of the Project and of the Public Hearing have preceded the Hearing. Hearing notices indicating that takings would occur were published twice in each of 21 newspapers. Capital Grant Applications listing the takings were available in 44 locations as listed in the Hearing notice. Many businessmen

testified at the Hearing. All businessmen who were on the list of takings and who were not in attendance at the Hearing were contacted by mail immediately after the Hearing. They were advised of the Project and of the occurance of the Hearing, and it was noted that they were not in attendance. Further, they were invited to call questions or concerns to the attention of the Southwest Corridor Development Coordinator and informed that the record would remain open until July 26 for their formal remarks. Several businessmen did call, and have submitted letters for the record as they felt necessary. These letters are included in the volume of "Written Statements Submitted for July 15, 1976, Public Hearing..." No "notice of taking" was sent to these businessmen since this would be premature.

DD. LANDSCAPING

"Landscaping should be of good quality with evergreen planting." "The Greenbelt should be well maintained."

There was substantial support for the proposed Greenbelt which would parallel the proposed railroad and transit facilities. This would be carefully landscaped to include bikeways, screen planting, a "regional trail" and careful fencing of the rail right-of-way. The Metropolitan District Commission, the City of Boston, and other members of the Southwest Working Committee have been meeting as a "Task Force on Open Space" in order to plan for the facility. Their suggestions include the recommendation that the MBTA utilize architecture disciplines on the design consultant team and that the care of maintenance of the greenbelt be by the Commonwealth through an appropriate park agency. The likely agent for such maintenance is the Metropolitan District Commission or the State Department of Environmental Management.

EE. EXTENSION OF THE ARTERIAL BEYOND FOREST HILLS

"The Arterial street should be extended to V.F.W. Parkway; to Turtle Pond Parkway; or other points South of Forest Hills.

Decisions made by the Governor of the Commonwealth in 1972, subsequent to the extensive analysis of the Southwest Corridor by the Boston Transportation Planning Review (BTPR), preclude extensions of the proposed arterial southerly beyond Forest Hills.

The BTPR examined a series of roadway facilities, from a full expressway and a "managed" expressway, to an arterial from Massachusetts Avenue to Jackson Square or Forest Hills, and a "no build." The Southwest Corridor E.I.A. examines these latter three options in detail, building upon the previous work of the BTPR Draft E.I.S., it is intended that the current E.I.A. bring the matter of arterial facilities in the Southwest Corridor to a close.

FF. CIRCUMFERENTIAL TRANSIT

"The Ruggles Street Station should contain provisions for a future 'Circumferential' transit station."

Station drawings for the proposed Ruggles Street Station indicate the connections to a circumferential or cross-town transit system with a platform at Ruggles Street. The provision of foundations and structural shell for a cross-town tunnel will be made in the engineering design of the station. A determination of the extent of this construction will be made based upon the consideration of joint development of parcel #18 adjacent to the facility. The station will be constructed in a manner that will permit joint development at the earliest possible date without later disruption.

GG. SIGNS IN SPANISH

"Signs in the proposed Roxbury Crossing, Jackson Square Stations should be in Spanish and in English."

Design of indicator and directional signs in new stations for the Relocated Orange Line and Commuter Rail system in the Southwest Corridor Project will be in Spanish as well as in English.

HH. MISCELLANEOUS

"How can a bicycle path be built in Jamaica Plain alongside a 36,000 car a day road."

For a short section (approximately 1500 feet) the proposed bicycle path in Jamaica Plain is placed adjacent to the location that the arterial would occupy if it were to be constructed. For a majority of its length (1½ miles), the bikeway is located in the proposed Greenbelt on the west side of the transit/railroad facility some 150 feet from the arterial location.

Chapter III

POST HEARING PROFILE AND PLAN

Consult Exhibit A of Capital Grant Application

For Project Description

SOUTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

ENVIRONMENTAL IMPACT ANALYSIS

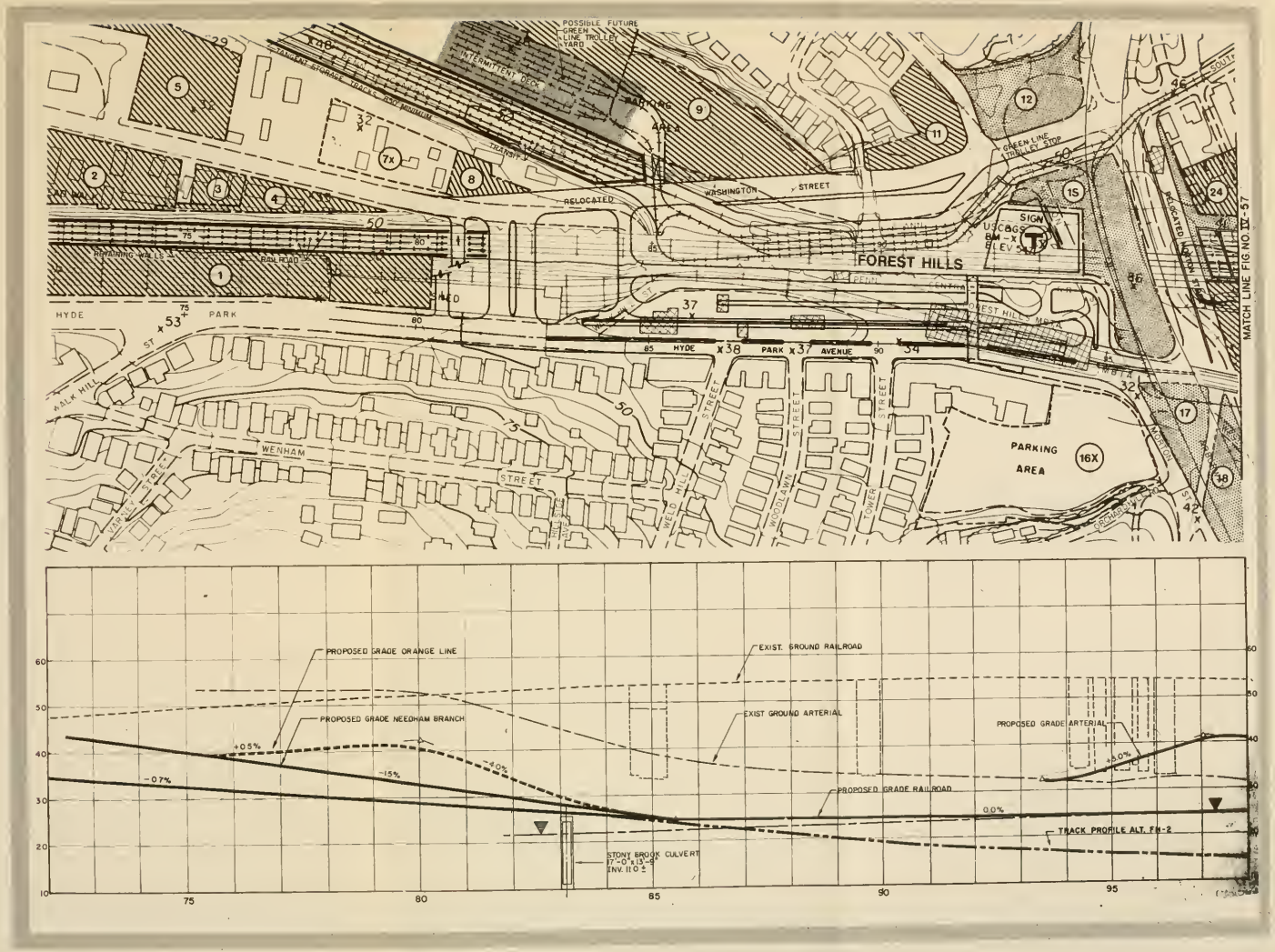
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

PLAN & PROFILE

POST HEARING DEPRESSED RAIL / TRANSIT ARTERIAL STREET EAST ALTERNATIVE

LEGEND

- REDEVELOPMENT PARCELS
- OPEN SPACE REDEVELOPMENT
- POTENTIAL REDEVELOPMENT (BY OTHERS)
- BUILDINGS TO BE REMOVED
- (13) PARCEL NUMBER
- M.B.T.A. & RAILROAD TRACK
- (T) PROPOSED STATIONS



SCALE
0 100 200 300

FIGURE
IV-56

SOUTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

ENVIRONMENTAL IMPACT ANALYSIS

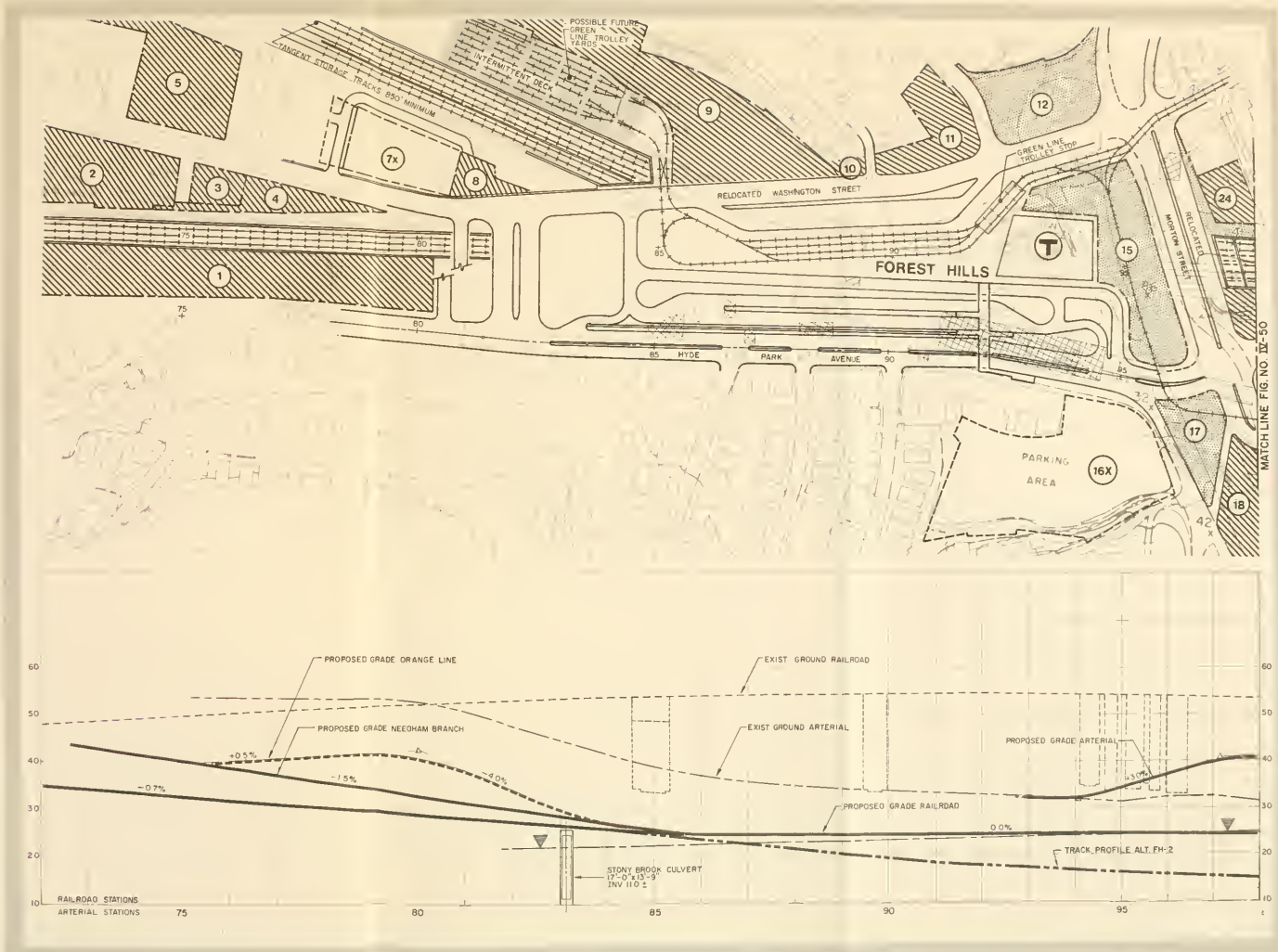
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

PLAN & PROFILE

POST HEARING DEPRESSED RAIL / TRANSIT NO ARTERIAL ALTERNATIVE

LEGEND

- REDEVELOPMENT PARCELS
- OPEN SPACE REDEVELOPMENT
- POTENTIAL REDEVELOPMENT (BY OTHERS)
- BUILDINGS TO BE REMOVED
- (13) PARCEL NUMBER
- M.B.T.A. & RAILROAD TRACK
- (T) PROPOSED STATIONS



SCALE
0 100 200 300

FIGURE
IV-49

SOUTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

ENVIRONMENTAL IMPACT ANALYSIS

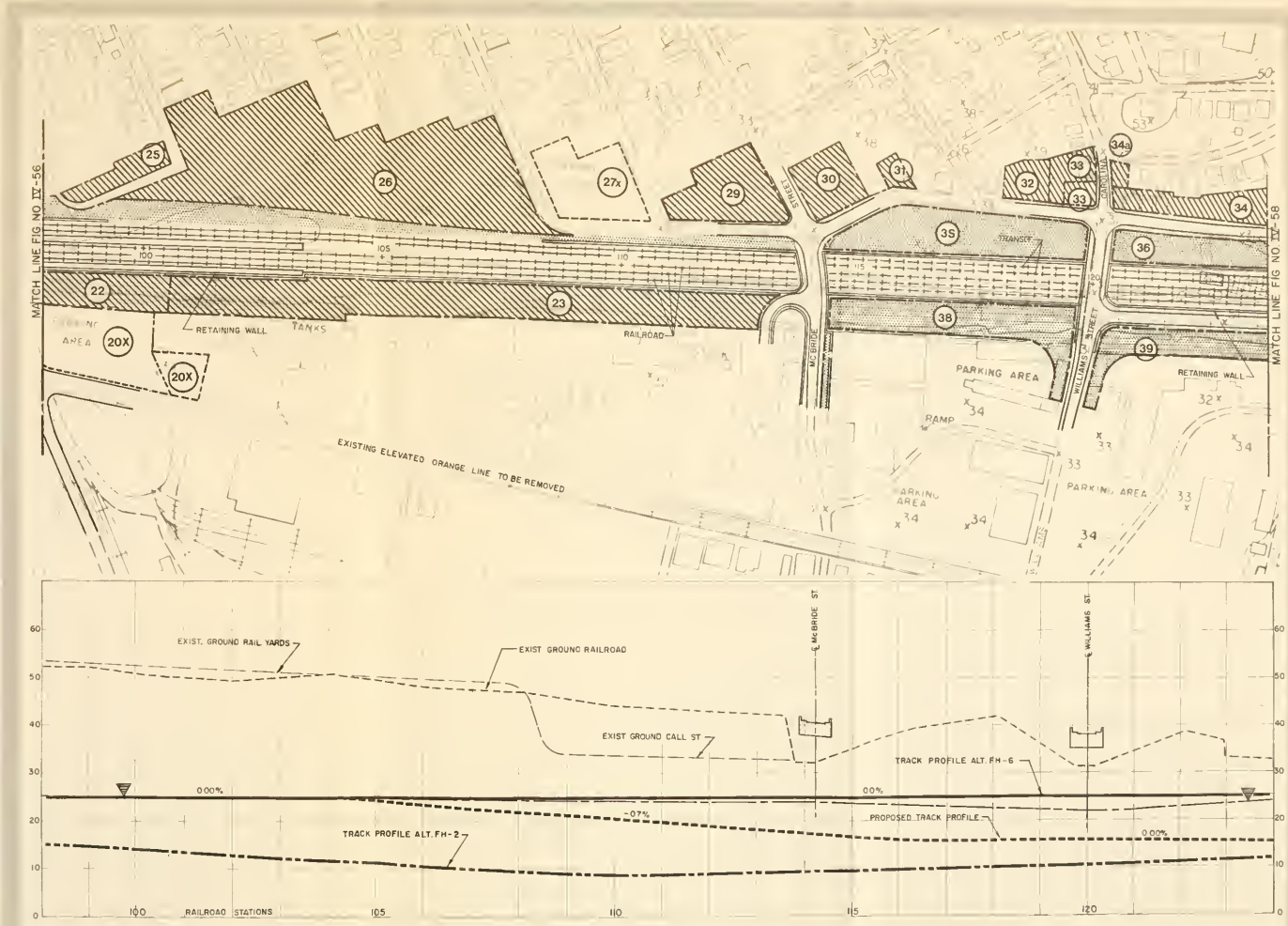
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

PLAN & PROFILE

POST HEARING DEPRESSED RAIL / TRANSIT ARTERIAL STREET EAST ALTERNATIVE

LEGEND

- REDEVELOPMENT PARCELS
- OPEN SPACE REDEVELOPMENT
- POTENTIAL REDEVELOPMENT (BY OTHERS)
- BUILDINGS TO BE REMOVED
- (13) PARCEL NUMBER
- M.B.T.A. & RAILROAD TRACK
- PROPOSED STATIONS



SCALE
0 100 200 300

FIGURE
IV-57

SOUTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

ENVIRONMENTAL IMPACT ANALYSIS

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

PLAN & PROFILE

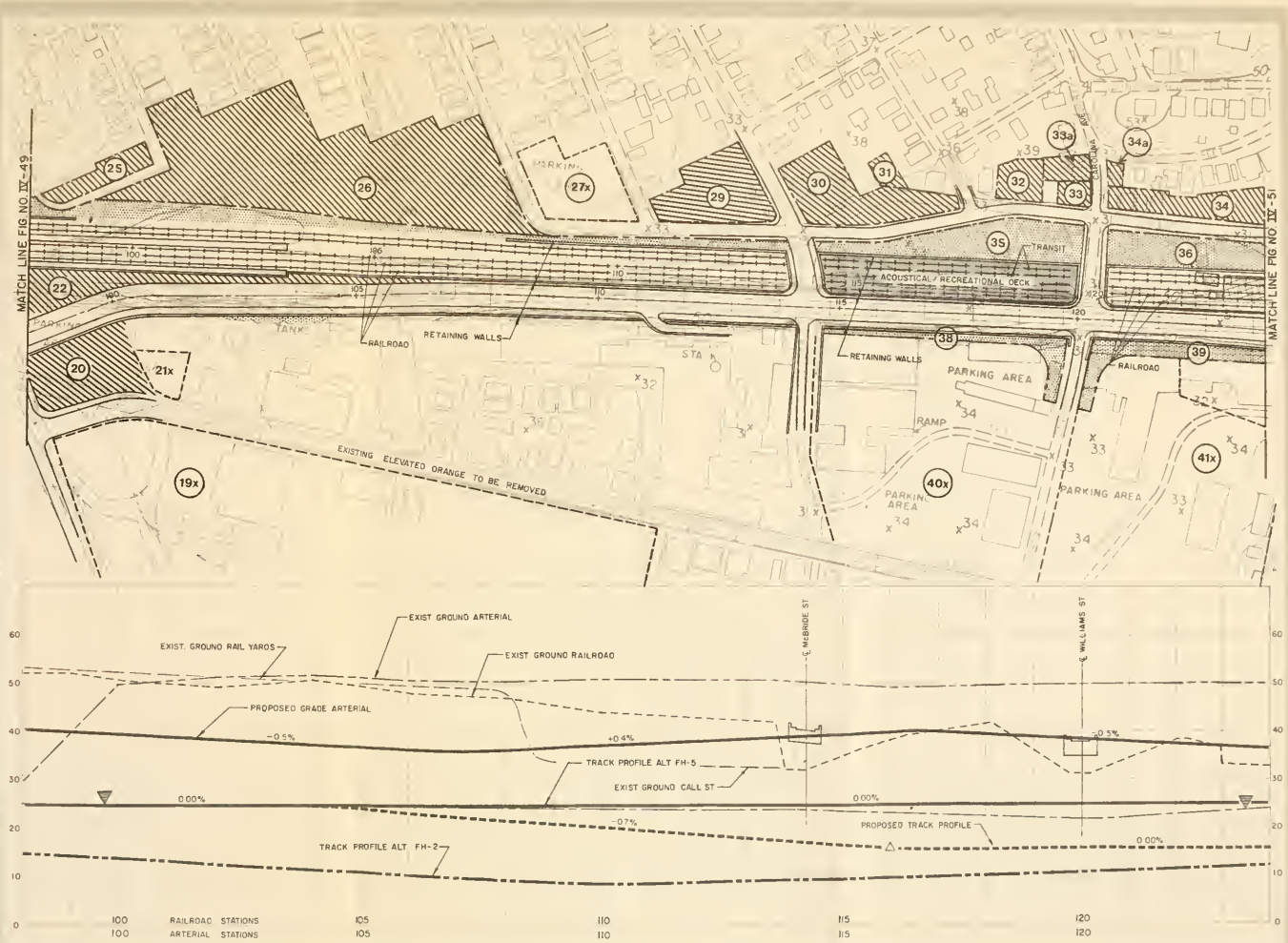
POST HEARING
DEPRESSED RAIL / TRANSIT
NO ARTERIAL ALTERNATIVE

LEGEND

- REDEVELOPMENT PARCELS
- OPEN SPACE REDEVELOPMENT
- POTENTIAL REDEVELOPMENT (BY OTHERS)
- BUILDINGS TO BE REMOVED
- (13) PARCEL NUMBER
- M.B.T.A. & RAILROAD TRACK
- PROPOSED STATIONS

SCALE 0 100 200 300

FIGURE IV-50



SOUTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

ENVIRONMENTAL IMPACT ANALYSIS

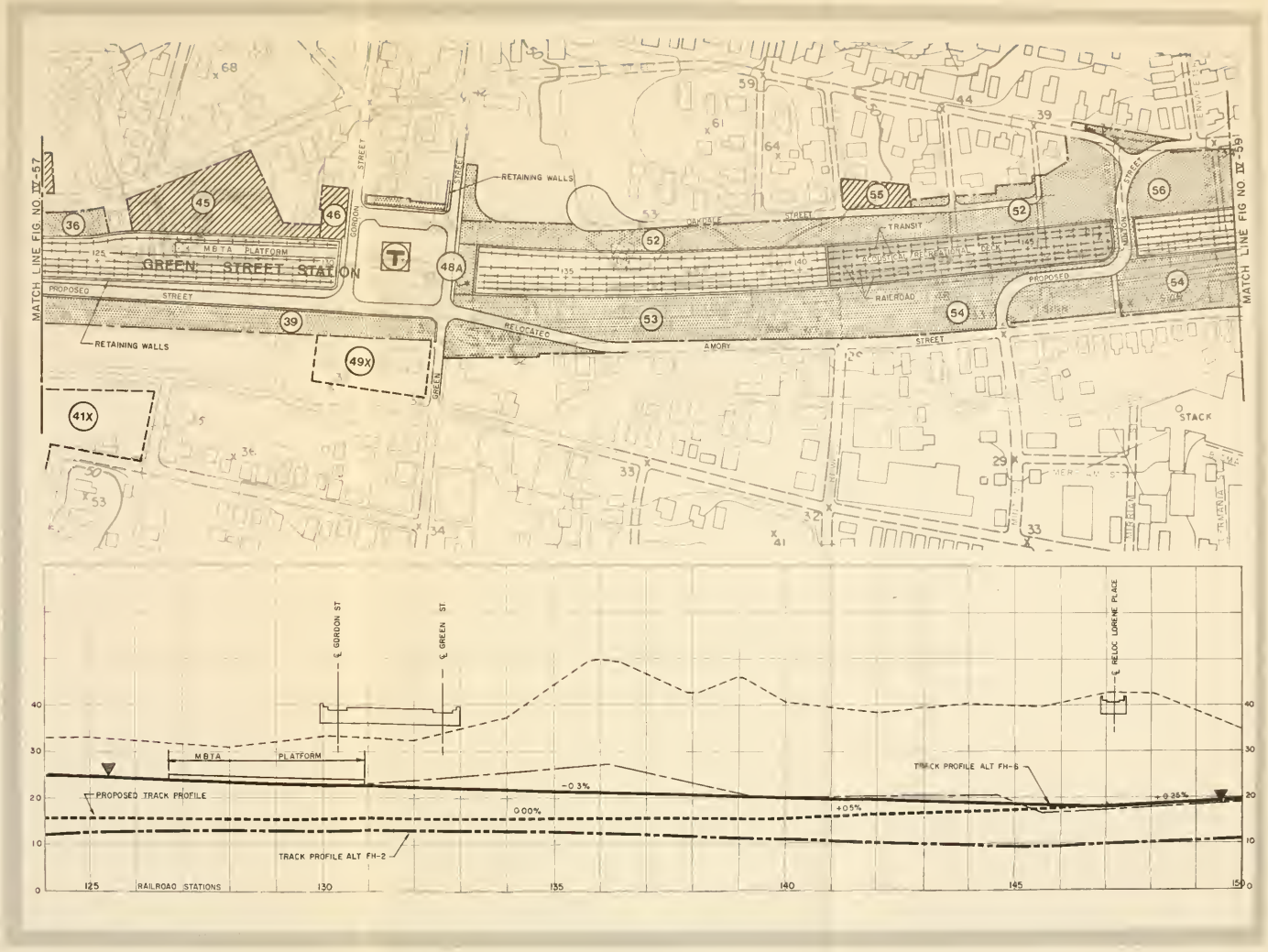
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

PLAN & PROFILE

POST HEARING DEPRESSED RAIL / TRANSIT ARTERIAL STREET EAST ALTERNATIVE

LEGEND

- REDEVELOPMENT PARCELS
- OPEN SPACE REDEVELOPMENT
- POTENTIAL REDEVELOPMENT (BY OTHERS)
- BUILDINGS TO BE REMOVED
- (13) PARCEL NUMBER
- M.B.T.A. & RAILROAD TRACK
- PROPOSED STATIONS



SCALE
0 100 200 300

FIGURE
IV-58

SOUTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

ENVIRONMENTAL IMPACT ANALYSIS

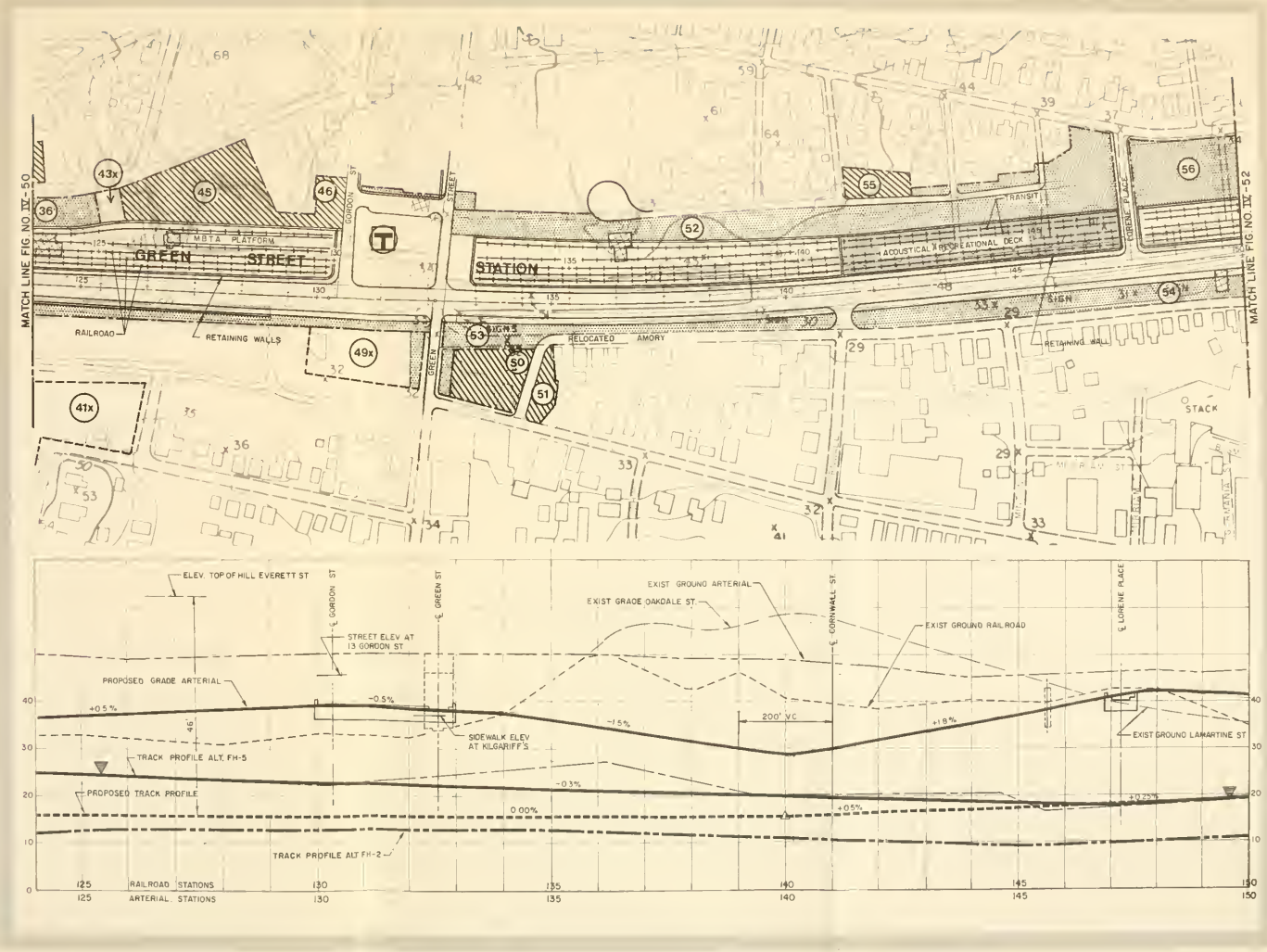
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

PLAN & PROFILE

POST HEARING DEPRESSED RAIL / TRANSIT NO ARTERIAL ALTERNATIVE

LEGEND

- REDEVELOPMENT PARCELS
- OPEN SPACE REDEVELOPMENT
- POTENTIAL REDEVELOPMENT (BY OTHERS)
- BUILDINGS TO BE REMOVED
- (13) PARCEL NUMBER
- M.B.T.A. & RAILROAD TRACK
- (T) PROPOSED STATIONS



SCALE
0 100 200 300

FIGURE
IV-51

SOUTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

ENVIRONMENTAL IMPACT ANALYSIS

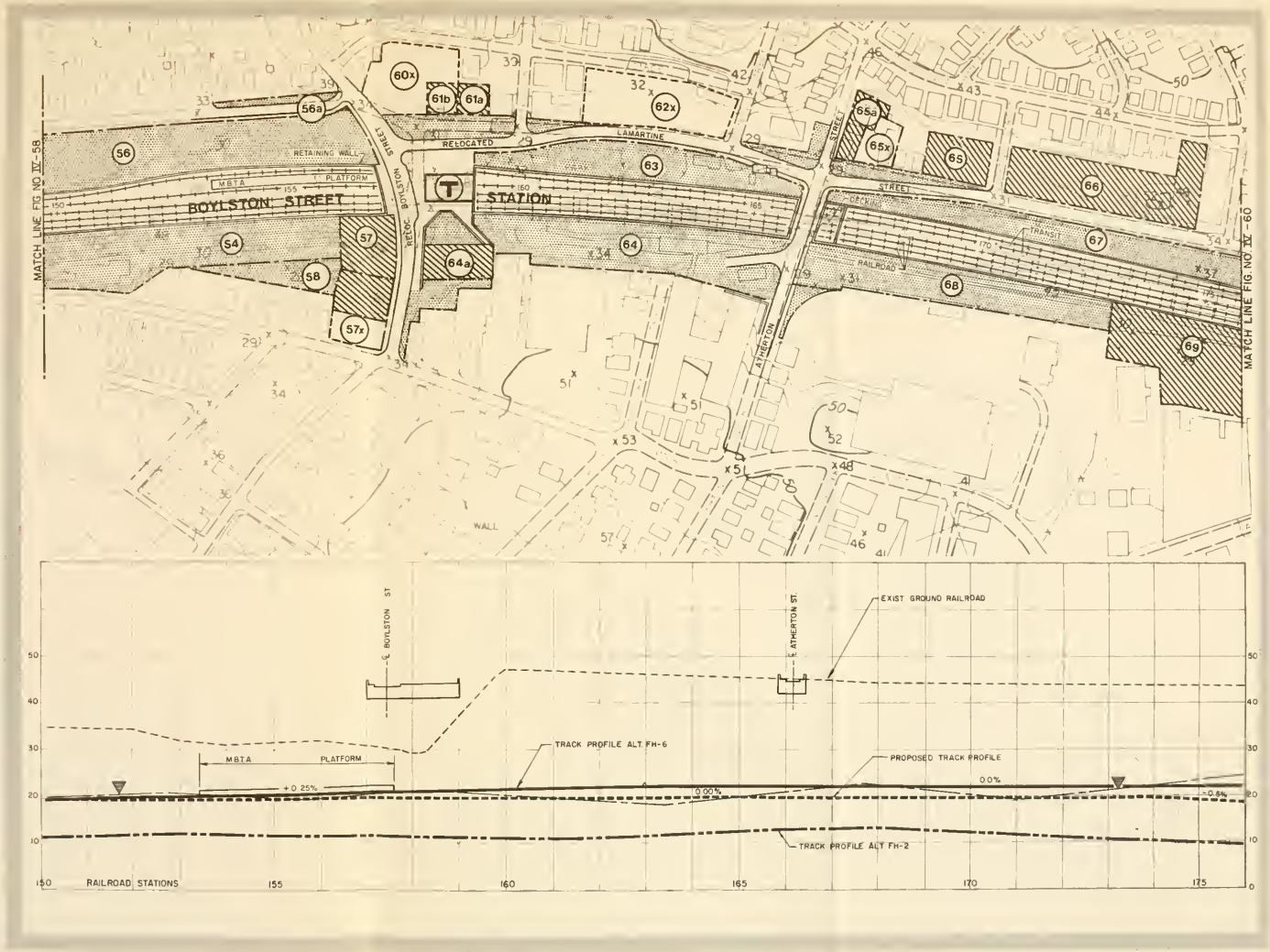
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

PLAN & PROFILE

POST HEARING DEPRESSED RAIL / TRANSIT ARTERIAL STREET EAST ALTERNATIVE

LEGEND

- REDEVELOPMENT PARCELS
- OPEN SPACE REDEVELOPMENT
- POTENTIAL REDEVELOPMENT (BY OTHERS)
- BUILDINGS TO BE REMOVED
- (13) PARCEL NUMBER
- M.B.T.A. & RAILROAD TRACK
- PROPOSED STATIONS



SCALE
0 100 200 300

FIGURE
IV-59

SOUTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

ENVIRONMENTAL IMPACT ANALYSIS

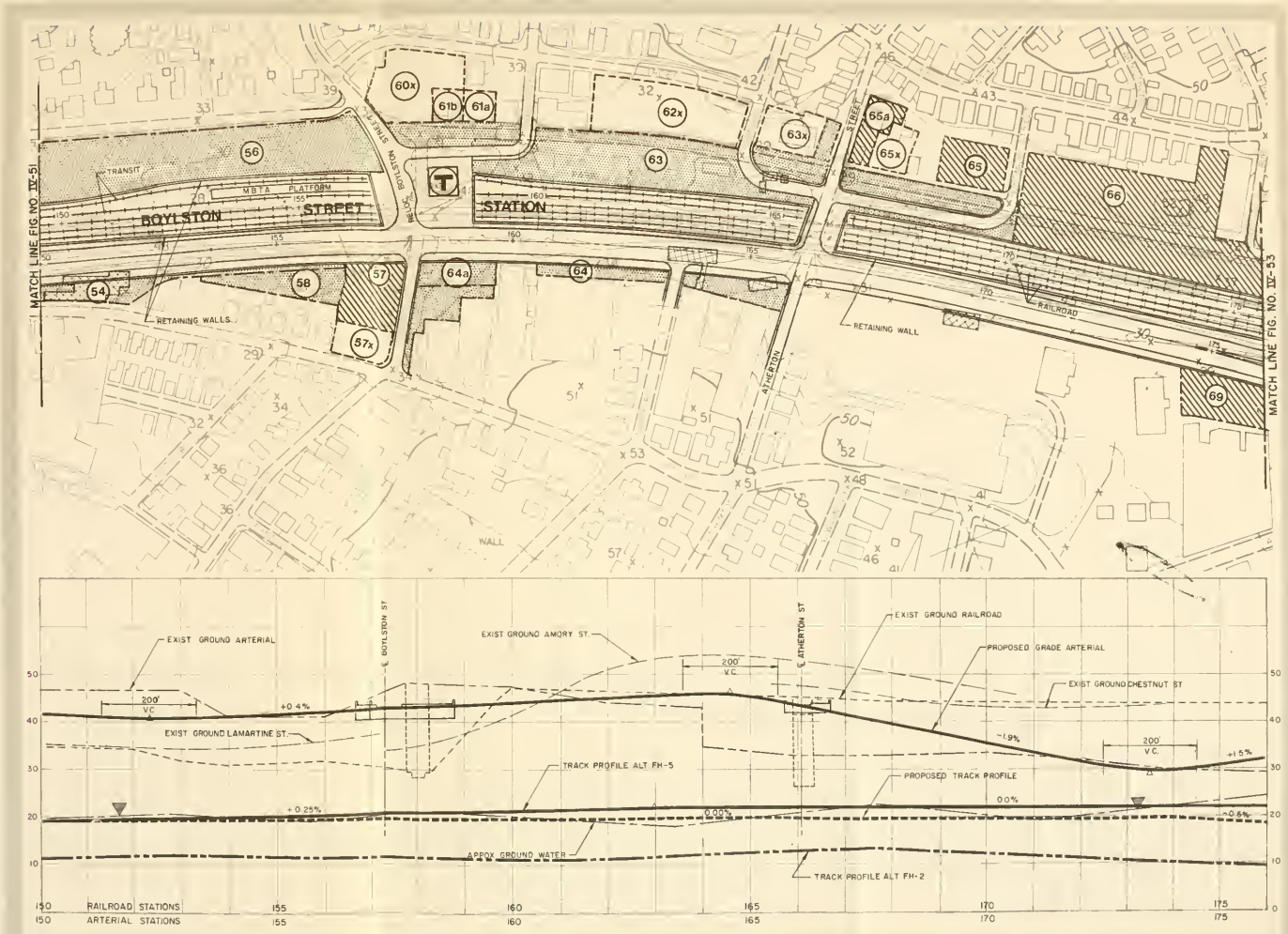
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

PLAN & PROFILE

POST HEARING DEPRESSED RAIL / TRANSIT NO ARTERIAL ALTERNATIVE

LEGEND

- REDEVELOPMENT PARCELS
- OPEN SPACE REDEVELOPMENT
- POTENTIAL REDEVELOPMENT (BY OTHERS)
- BUILDINGS TO BE REMOVED
- (13) PARCEL NUMBER
- M.B.T.A. & RAILROAD TRACK
- (T) PROPOSED STATIONS



SCALE
0 100 200 300

FIGURE
IV-52

SOUTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

ENVIRONMENTAL IMPACT ANALYSIS

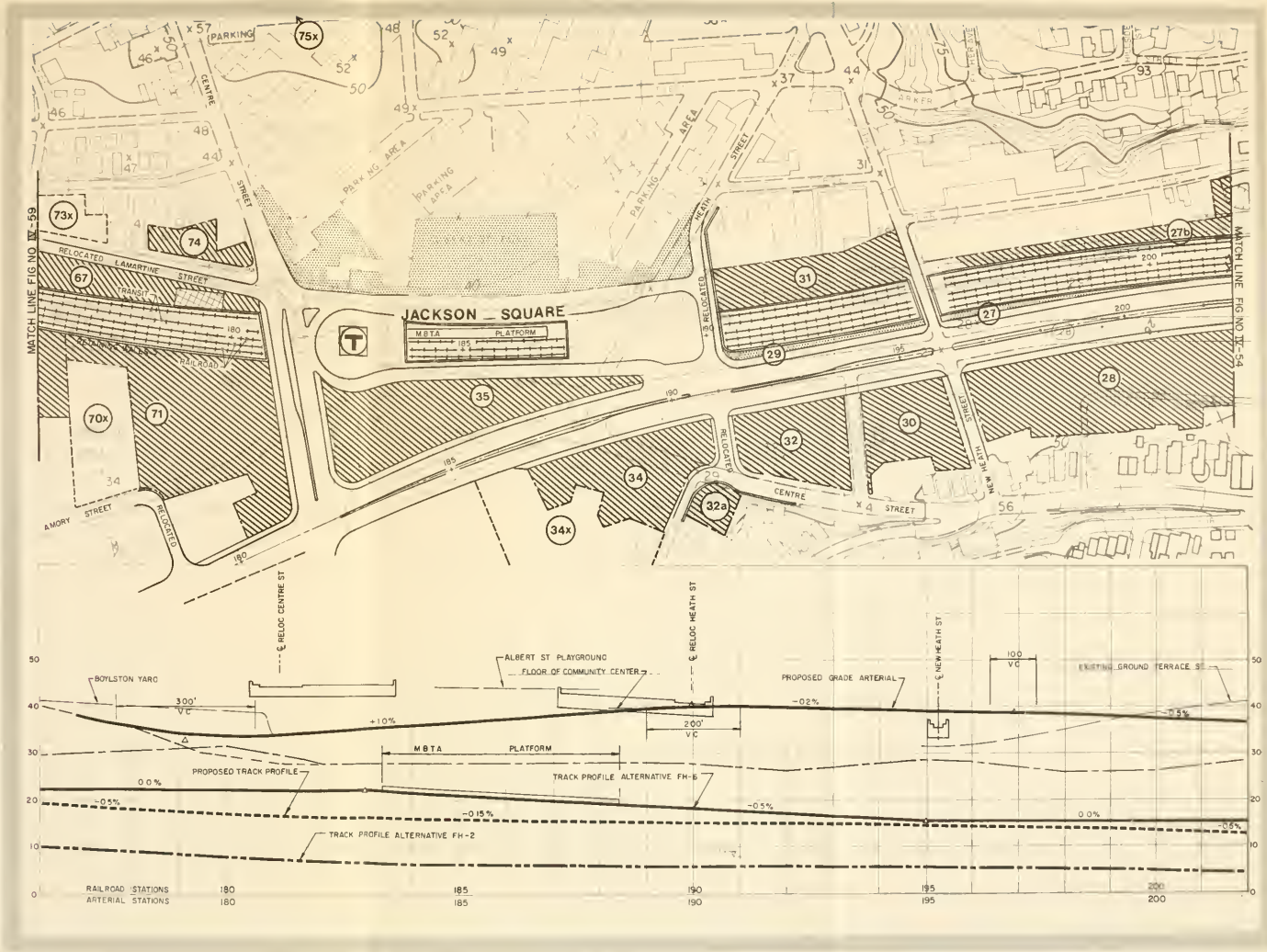
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

PLAN & PROFILE

POST HEARING DEPRESSED RAIL / TRANSIT ARTERIAL STREET EAST ALTERNATIVE

LEGEND

- REDEVELOPMENT PARCELS
- OPEN SPACE REDEVELOPMENT
- POTENTIAL REDEVELOPMENT (BY OTHERS)
- BUILDINGS TO BE REMOVED
- (13) PARCEL NUMBER
- M.B.T.A. & RAILROAD TRACK
- (T) PROPOSED STATIONS



SCALE
0 100 200 300

FIGURE
IV-60

SOUTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

ENVIRONMENTAL IMPACT ANALYSIS

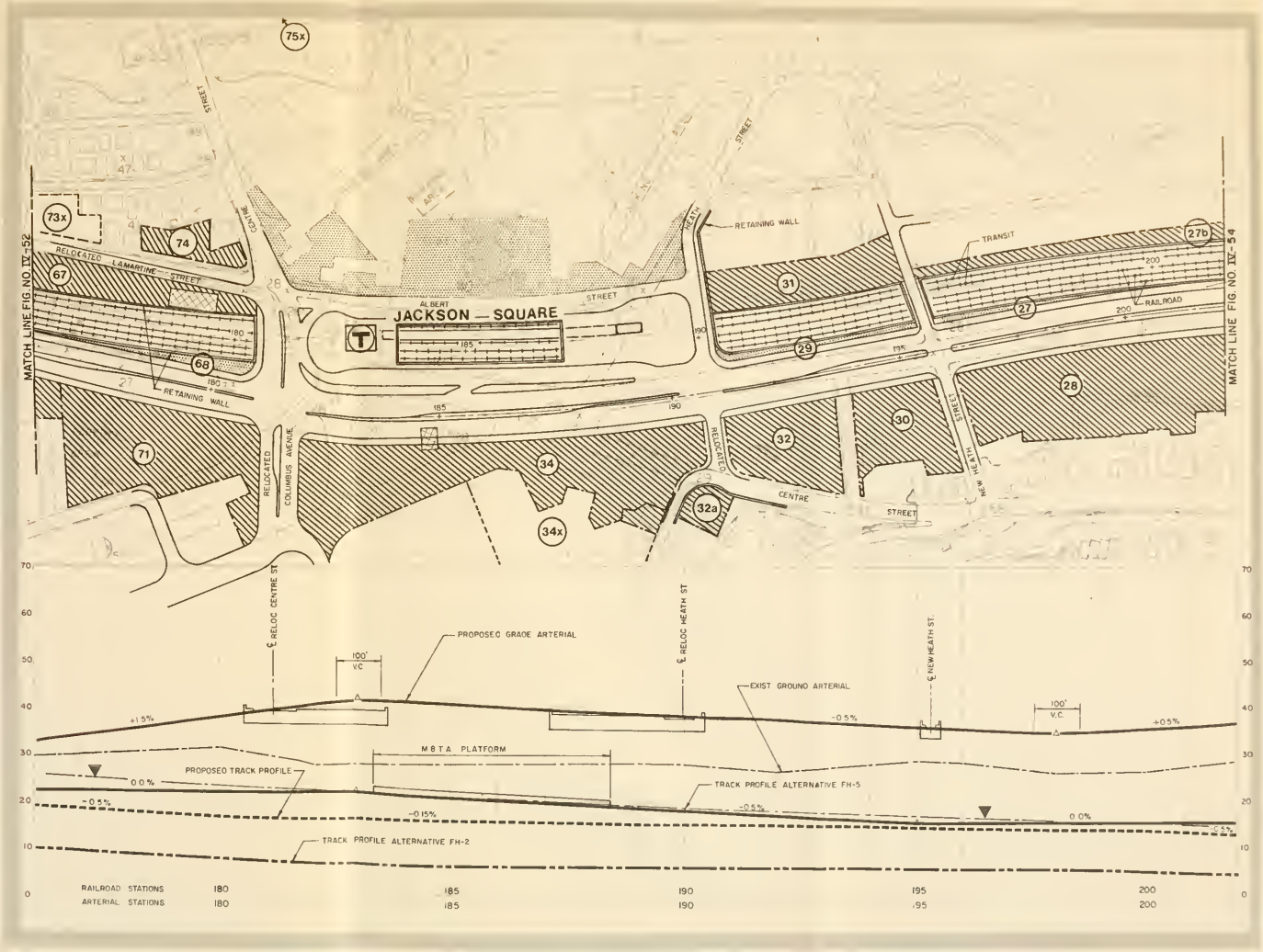
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

PLAN & PROFILE

POST HEARING DEPRESSED RAIL / TRANSIT NO ARTERIAL ALTERNATIVE

LEGEND

- REDEVELOPMENT PARCELS
- OPEN SPACE REDEVELOPMENT
- POTENTIAL REDEVELOPMENT (BY OTHERS)
- BUILDINGS TO BE REMOVED
- (13) PARCEL NUMBER
- M.B.T.A. & RAILROAD TRACK
- (T) PROPOSED STATIONS



SCALE
0 100 200 300

FIGURE
IV-53

SOUTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

ENVIRONMENTAL IMPACT ANALYSIS

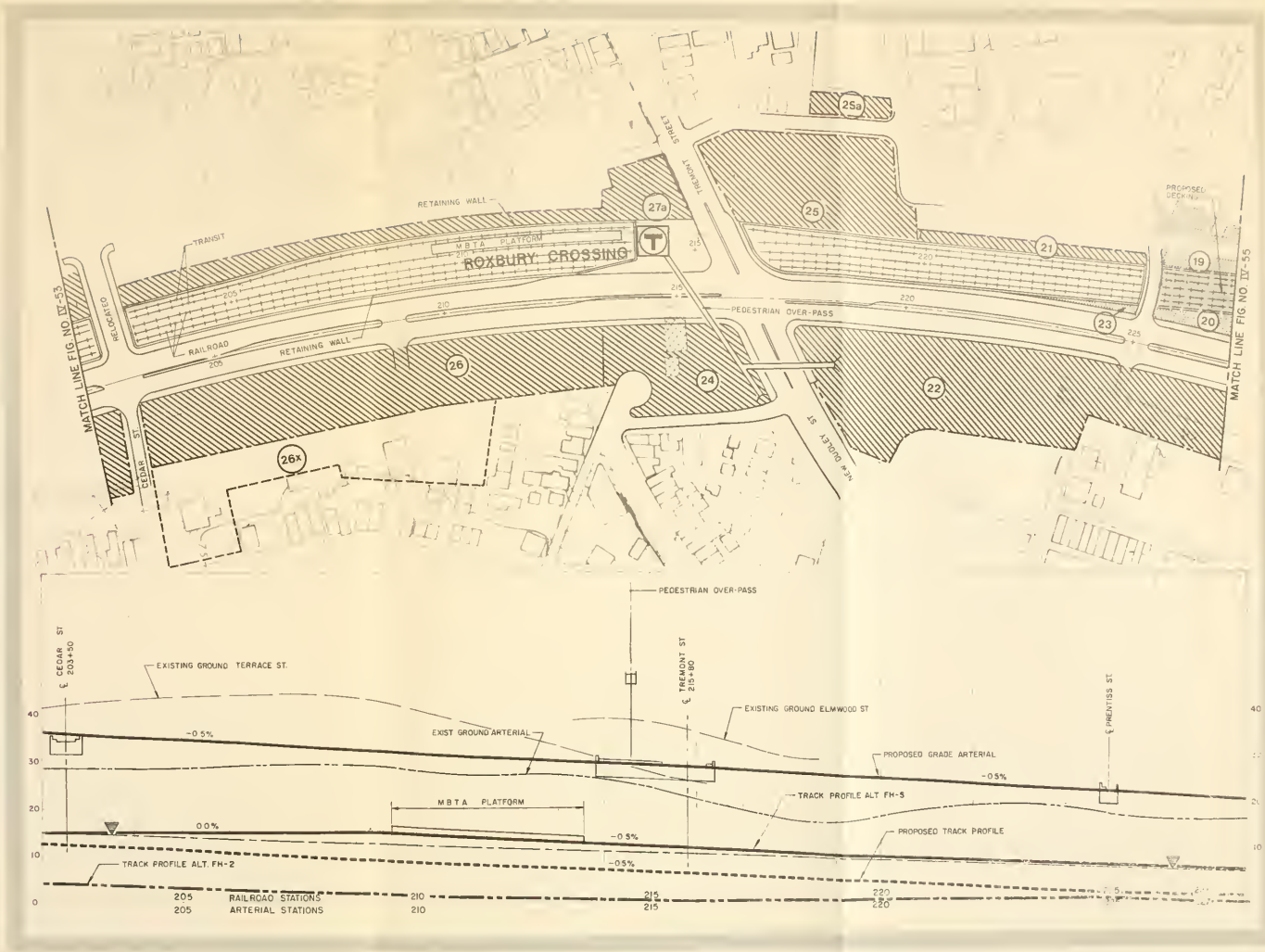
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

PLAN & PROFILE

POST HEARING
DEPRESSED RAIL / TRANSIT
NO ARTERIAL ALTERNATIVE

LEGEND

- REDEVELOPMENT PARCELS
- OPEN SPACE REDEVELOPMENT
- POTENTIAL REDEVELOPMENT (BY OTHERS)
- BUILDINGS TO BE REMOVED
- (13) PARCEL NUMBER
- M.B.T.A. & RAILROAD TRACK
- (T) PROPOSED STATIONS



SCALE
NORTH
0 100 200 300

FIGURE
IV-54

SOUTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

ENVIRONMENTAL IMPACT ANALYSIS

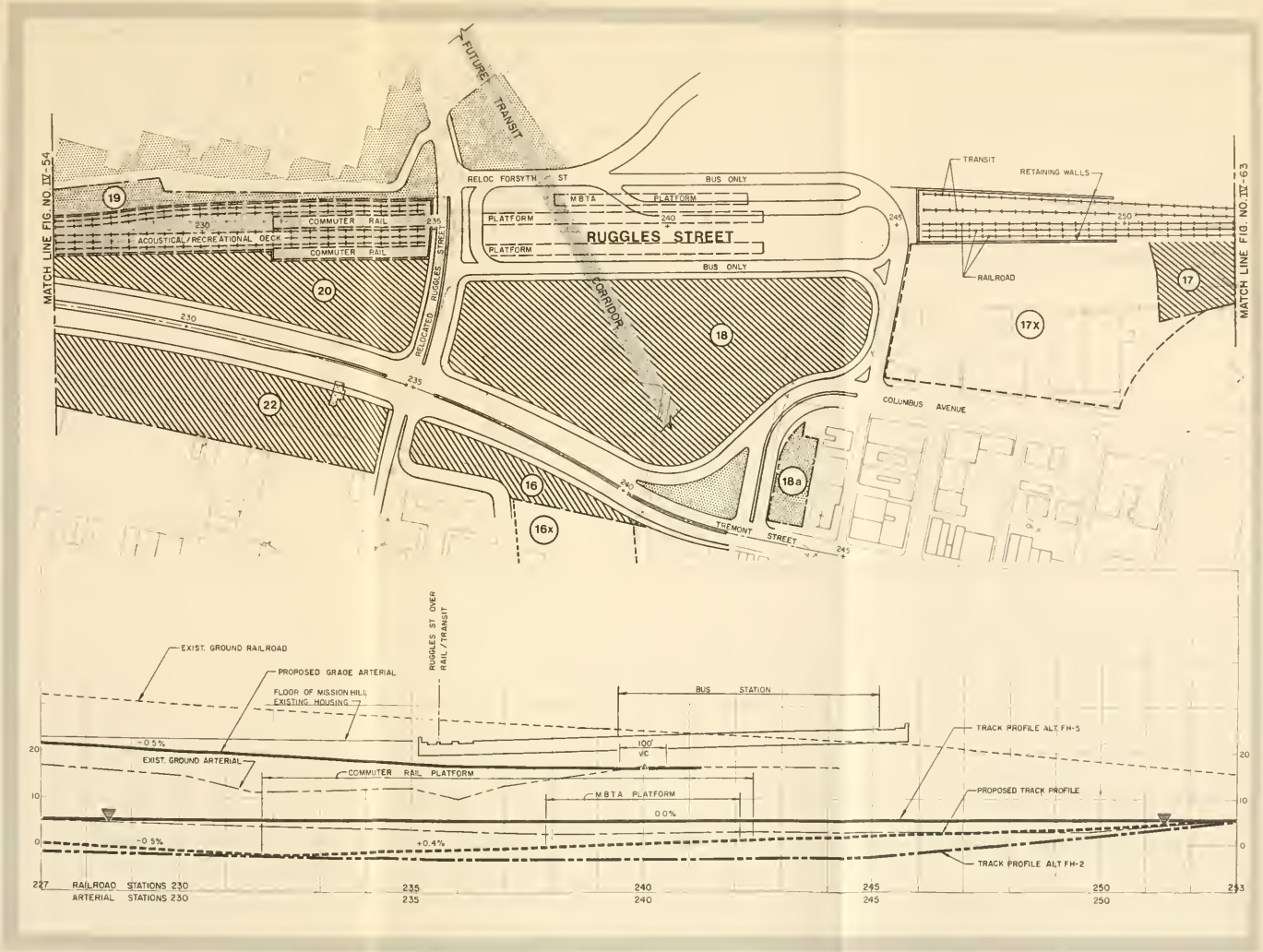
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

PLAN & PROFILE

POST HEARING DEPRESSED RAIL / TRANSIT NO ARTERIAL ALTERNATIVE

LEGEND

- REDEVELOPMENT PARCELS
- OPEN SPACE REDEVELOPMENT
- POTENTIAL REDEVELOPMENT (BY OTHERS)
- BUILDINGS TO BE REMOVED
- (13) PARCEL NUMBER
- M.B.T.A. & RAILROAD TRACK
- (T) PROPOSED STATIONS



SCALE
0 100 200 300

FIGURE
IV-55

SOUTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

ENVIRONMENTAL IMPACT ANALYSIS

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

PLAN & PROFILE

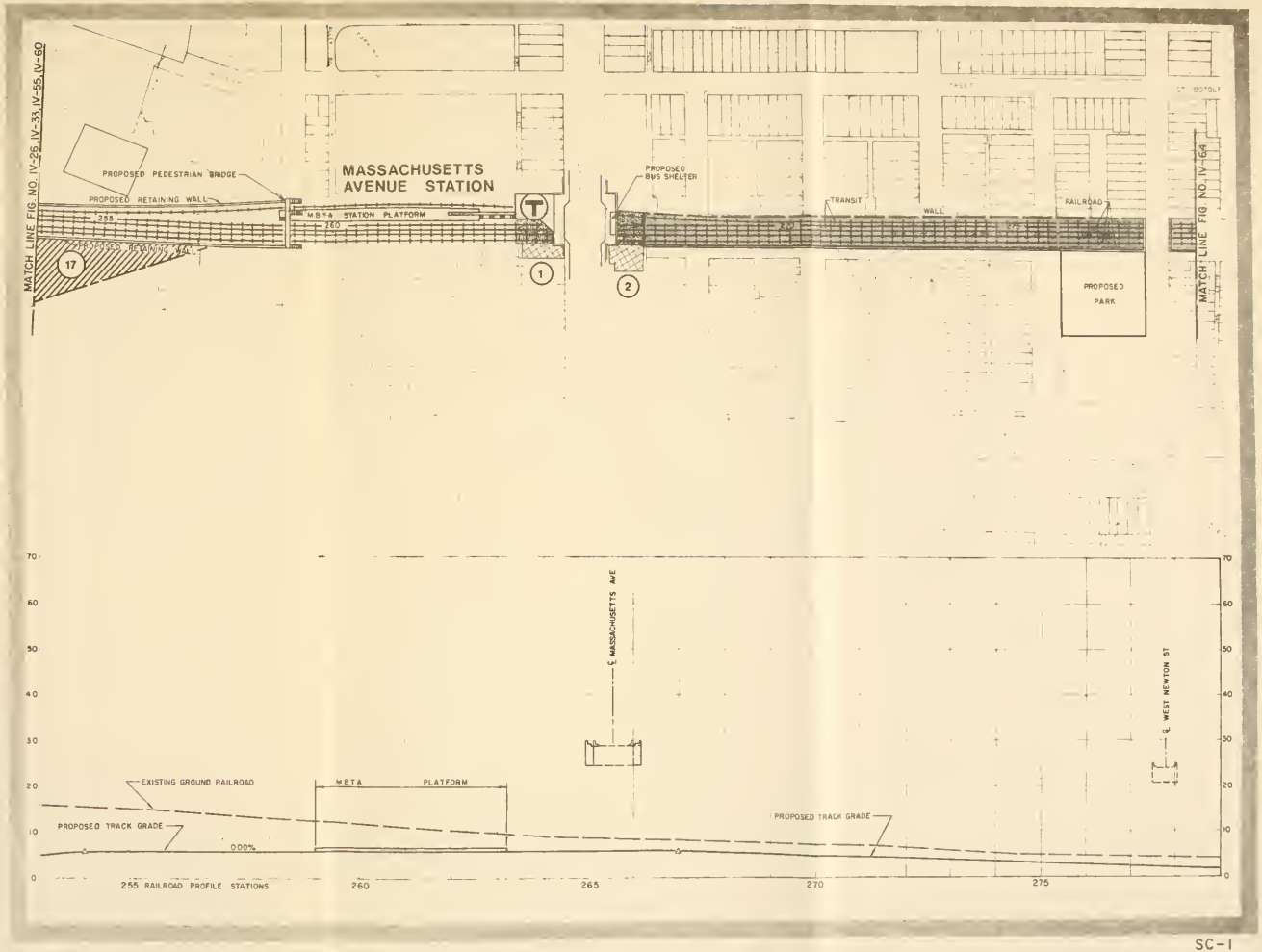
MINIMUM GRADE ADJUSTMENTS, ALL TRACKS

LEGEND

- REDEVELOPMENT PARCELS
- OPEN SPACE REDEVELOPMENT
- POTENTIAL REDEVELOPMENT (BY OTHERS)
- BUILDINGS TO BE REMOVED
- (13) PARCEL NUMBER
- M.B.T.A. & RAILROAD TRACK
- (T) PROPOSED STATIONS

SCALE 0 100 200 300

FIGURE IV-63



SC-1

SOUTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

ENVIRONMENTAL IMPACT ANALYSIS

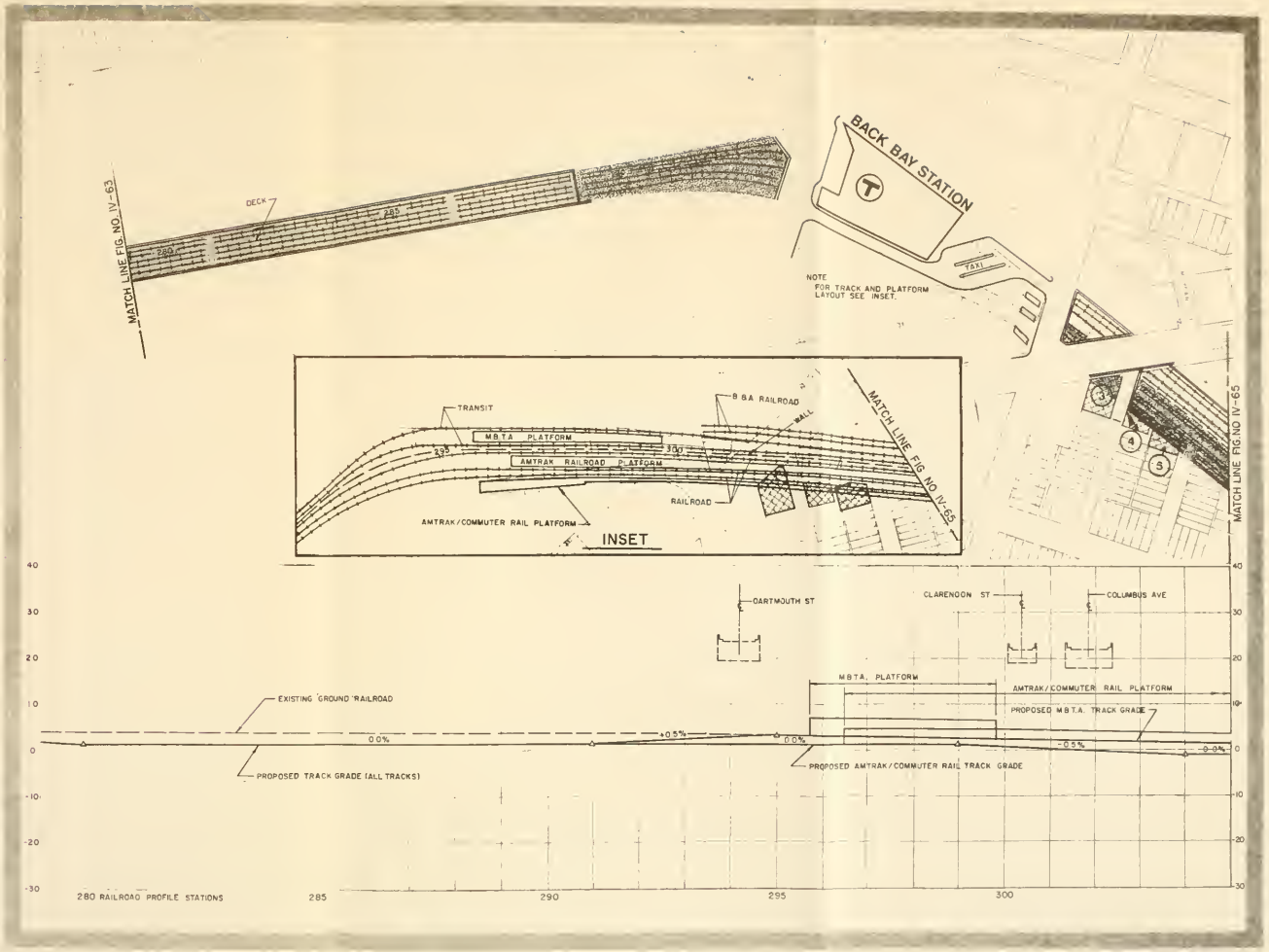
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

PLAN & PROFILE

MINIMUM GRADE ADJUSTMENTS, ALL TRACKS

LEGEND

- REDEVELOPMENT PARCELS
- OPEN SPACE REDEVELOPMENT
- POTENTIAL REDEVELOPMENT (BY OTHERS)
- BUILDINGS TO BE REMOVED
- (13) PARCEL NUMBER
- M.B.T.A. & RAILROAD TRACK
- PROPOSED STATIONS



SCALE
0 100 200 300

FIGURE
IV-64

SC-1

SOUTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

ENVIRONMENTAL IMPACT ANALYSIS

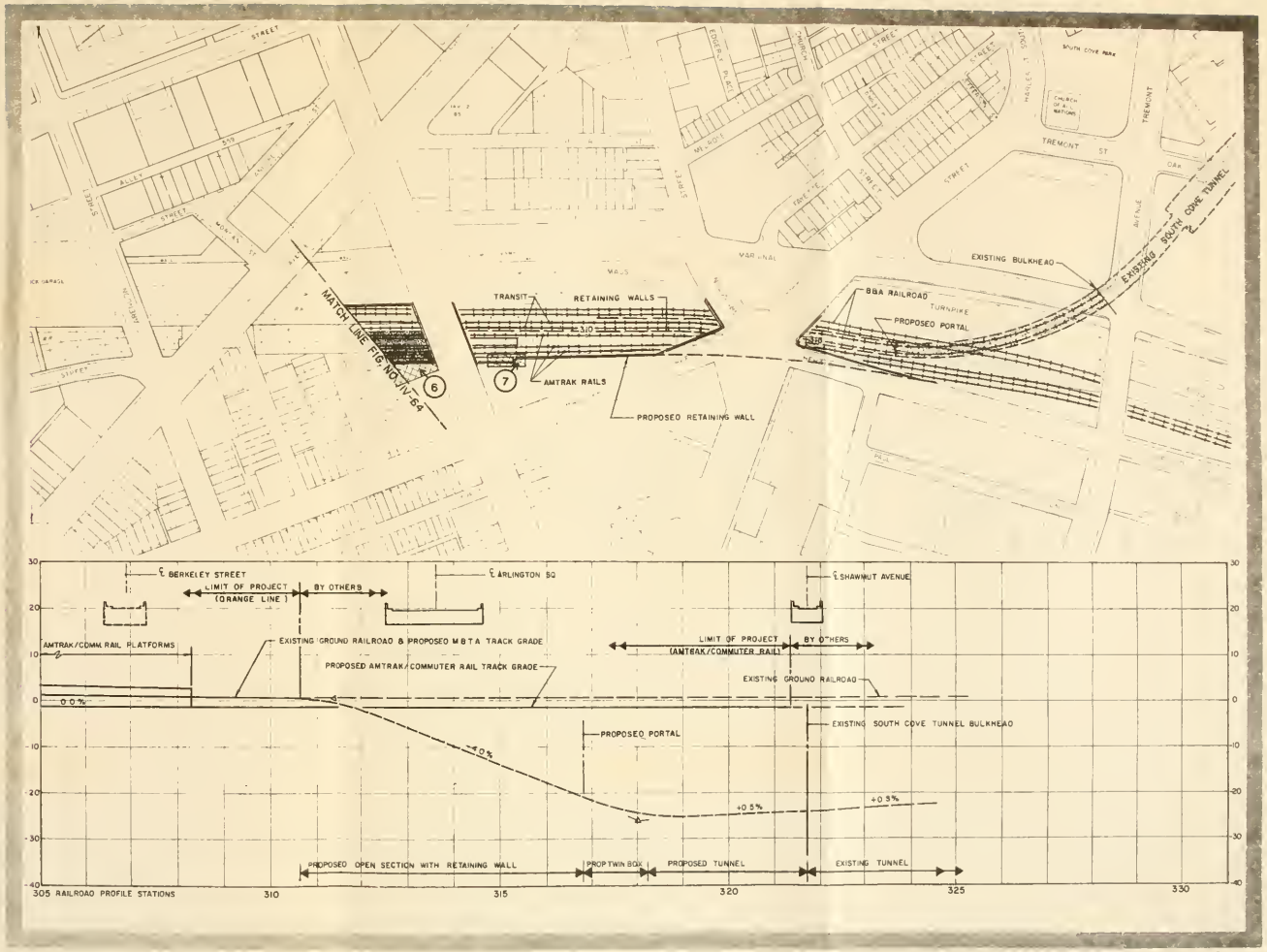
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

PLAN & PROFILE

MINIMUM GRADE ADJUSTMENTS, ALL TRACKS

LEGEND

- REDEVELOPMENT PARCELS
- OPEN SPACE REDEVELOPMENT
- POTENTIAL REDEVELOPMENT (BY OTHERS)
- BUILDINGS TO BE REMOVED
- (13) PARCEL NUMBER
- M.B.T.A. & RAILROAD TRACK
- (T) PROPOSED STATIONS



SCALE 0 100 200 300

FIGURE IV-65

SC-1